ADSL 2/2+ Router with USB Port

ADE-3410v3

User's Manual

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Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

FCC Caution

To assure continued compliance (example-use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the Following two conditions: (1) This device may not cause harmful interference, and (2) this Device must accept any interference received, including interference that may cause undesired operation.

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE)

The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

WEEE Regulation

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

Revision

User's Manual for Wired / Wireless ADSL 2/2+ Router
Model: ADE-3410v3
Rev: 2.0 (February 2009)
Part No. EM-ADE3410v3_v2

Table of Contents

1. INTRODUCTION 6

1.1 Feature *6*

1.2 Package Contents *7*

1.3 Physical Details *7*

2. INSTALLATION 9

2.1 System Requirement *9*

2.2 Hardware Installation *9*

2.3 Configuring the Network Properties *10*

3. WEB CONFIGURATION MANAGEMENT 14

3.1 ADSL Router Status *15*

3.1.1 System Status 15

3.1.2 LAN Status 16

3.1.3 WAN Status 16

3.1.4 Port Mapping 17

3.1.5 Statistic 17

3.1.6 ARP Table 18

3.2 Wizard *19*

3.3 LAN *22*

3.3.1 LAN Interface Settings 22

3.3.2 DHCP Server Settings 23

3.4 WAN *25*

3.4.1 WAN Interface 25

3.4.2 ATM Settings 28

3.4.3 ADSL Settings 29

3.5 Advance *30*

3.5.1 DNS 30

3.5.2 Firewall 32

3.5.2.1 IP/Port filtering 32

3.5.2.2 MAC Filtering 34

3.5.2.3 URL Block 36

3.5.3 Virtual Server 37

3.5.3.1 Services 37

3.5.3.2 DMZ 38
3.5.4 Routing 38
3.5.4.1 RIP 38
3.5.4.2 Static Route 39
3.5.5 IP QoS 40
3.5.6 Anti-DoS 42
3.5.7 Port Mapping 43
3.5.8 Other 44
3.5.8.1 IGMP Proxy 44
3.5.8.2 UPnP 44
3.5.8.3 Bridge 45
3.6 Admin 46
3.6.1 Remote Access 46
3.6.2 Commit / Reboot 46
3.6.3 Password 47
3.6.4 Backup / Restore 48
3.6.5 Upgrade Firmware 48
3.6.6 Time Zone 49
3.6.7 System Log 50
3.6.8 SNMP 51
3.6.9 TR-069 52
3.6.10 ACL 52
3.7 Diagnostic 53
3.7.1 Ping 53
3.7.2 ATM Loopback 53
3.7.3 ADSL 54
3.7.4 Diagnostic 55
APPENDIX A: GLOSSARY 56

1. Introduction

The PLANET ADSL 2/2+ Router, ADE-3410, provides office and residential users the ideal solution for sharing a high-speed ADSL 2/2+ broadband Internet connection on one Ethernet port and one USB port. It can support downstream transmission rates of up to 24Mbps and upstream transmission rates of up to 3.5Mbps. The product supports PPPoA (RFC 2364 - PPP over ATM Adaptation Layer 5), PPP over Ethernet (RFC 2516), and RFC 1483 encapsulation over ATM (MER, bridged or routed) to establish a connection with ISP.

Via the user-friendly management interface, ADE-3410 can be managed by workstations running standard web browsers. Furthermore, ADE-3410 provides DHCP server, NAT, Virtual Server, DMZ, Access Control, IP Filter, PPTP/IPSec/L2TP pass-through, DDNS, and UPnP capability.

The ADE-3410 also serves as an Internet firewall, protecting your network from being accessed by outside users. It provides the natural firewall function (Network Address Translation, NAT). All incoming and outgoing IPs are monitored and filtered. Moreover, it can be configured to block internal users from accessing to the Internet.

1.1 Feature

Internet Access Features

- ***Shared Internet Access*** All users on the LAN can access the Internet through the ADE-3410 using only a single external IP Address. The local (invalid) IP Addresses are hidden from external sources. This process is called NAT (Network Address Translation).
- ***Built-in ADSL 2/2+ Modem*** The ADE-3410 provides ADSL 2/2+ modem, and supports all common ADSL connections.
- ***PPPoE, PPPoA, Direct Connection Support*** Various WAN connections are supported by ADE-3410.
- ***Auto-detection of Internet Connection Method*** In most situations, the ADE-3410 can test your ADSL and Internet connection to determine the connection method used by your ISP.
- ***Fixed or Dynamic IP Address*** On the Internet (WAN port) connection, the ADE-3410 supports both Dynamic IP Address (IP Address is allocated on connection) and Fixed IP Address.

Advanced Internet Functions

- ***Virtual Servers*** This feature allows Internet users to access Internet servers on your LAN. The required setup is quick and easy.
- ***DMZ Support*** The ADE-3410 can translate public IP addresses to private IP address to allow unrestricted 2-way communication with Servers or individual users on the Internet. This provides the most flexibility to run programs, which could be incompatible in NAT environment.
- ***Firewall*** Supports simple firewall with NAT technology and provides option for access control from Internet, like Telnet, FTP, TFTP, HTTP, SNMP, and ICMP services. It also supports MAC and IP filtering.
- ***Universal Plug and Play (UPnP)*** UPnP allows automatic discovery and configuration of the Broadband Router. UPnP is supported by Windows ME, XP, or later.

- ***Dynamic DNS Support*** DDNS, when used with the Virtual Servers feature, allows users to connect to Servers on your LAN using a Domain Name, even if you have a dynamic IP address which changes every time you connect.
- ***VPN Pass through Support*** PCs with VPN (Virtual Private Networking) software using PPTP, L2TP, and IPSec are transparently supported - no configuration is required.
- ***RIP Routing*** It supports RIPv1/2 routing protocol for routing capability.
- ***Simple Network Management Protocol (SNMP)*** It is an easy way to remotely manage the router via SNMP.

LAN Features

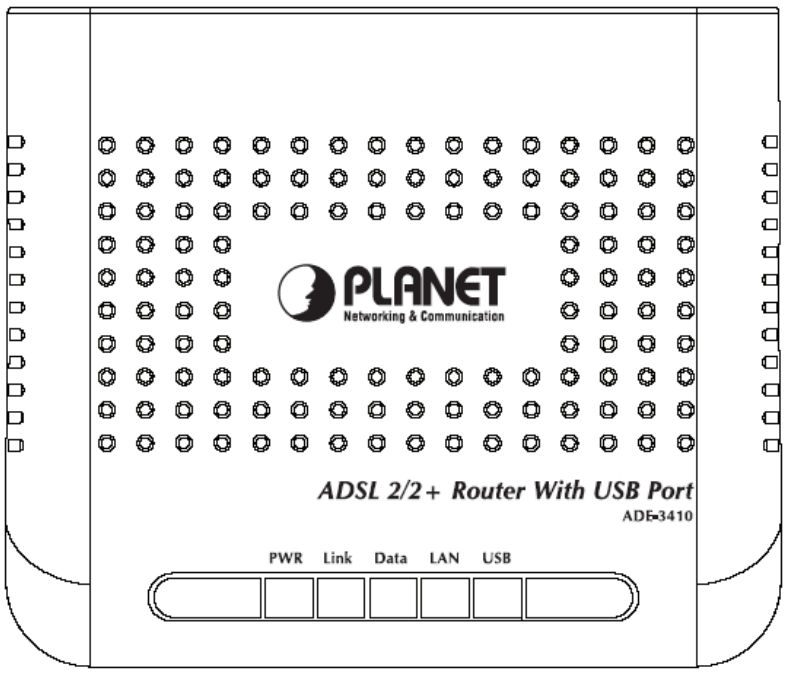
- ***Dual-Port*** The ADE-3410 incorporates on one Ethernet port and one USB port, making it easy to create or extend your LAN.
- ***DHCP Server Support*** **D**ynamic **H**ost **C**onfiguration **P**rotocol provides a dynamic IP address to PCs and other devices upon request. The ADE-3410 can act as a DHCP Server for devices on your local LAN.

1.2 Package Contents

- ADE-3410 Unit x 1
- CD-ROM x 1 (Include User's Manual, Quick Guide, and Driver)
- Quick Installation Guide
- ADSL Splitter x 1
- Power Adapter x 1
- RJ-11 (ADSL) Cable x 2
- RJ-45 Cable x 1
- USB Cable x 1

1.3 Physical Details

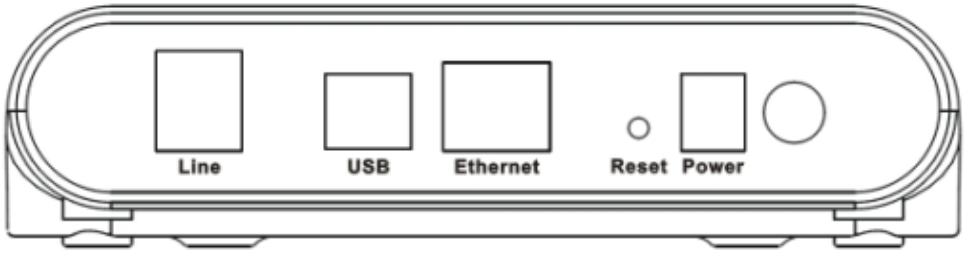
Front Panel of ADE-3410



Front Panel LED definition

LED		Meaning
1	**PWR**	Lit when power is ON.
2	**Link**	Lit when DSL line is connected. Blink when DSL line is training.
3	**Data**	Blink when DSL data is transferring.
4	**LAN**	Lit when connected to an Ethernet device. Blink when data is Transmitted / Received.
5	**USB**	Lit when the USB port is connected to the PC and working properly.

Rear Panel



Rear Panel Port and Button Definition

	Port	Meaning
1	**Line**	Connect the supplied RJ-11 (“telephone”) cable to this port when connecting to the ADSL/telephone network.
2	**USB**	Connect the supplied USB cable to this port when connecting to the PC
3	**Ethernet**	Connect a UTP Ethernet cable (Cat-5 or Cat-5e) to one of the four LAN ports when connecting to a PC or an office / home network of 10Mbps or 100Mbps.
4	**Reset**	After the device is powered on, press it to reset the device or restore to factory default settings. Reset the device 6 seconds above to restore the factory default settings (this is used when you can not login to the router, e.g. forgot the password)
5	**Power**	Connect the supplied power adapter to this jack (10V DC, 0.6A).
6	**Power Switch**	Power ON / OFF switch

2. Installation

This chapter offers information about installing your router. If you are not familiar with the hardware or software parameters presented here, please consult your service provider for the values needed.

2.1 System Requirement

1. Personal computer (PC)
2. Pentium III 266 MHz processor or higher
3. 128 MB RAM minimum
4. 20 MB of free disk space minimum
5. RJ45 Ethernet Port

2.2 Hardware Installation

Please connect the device to you computer as follow:

- If connecting to the splitter, connect the “Line” splitter to wall jack using one RJ-11 cable
- Use another RJ-11cable to connect “MODEM” port of the splitter and “LINE” port of the modem. The “phone” port of the splitter can be use to connect the telephone by a RJ-11 cable.
- Use Ethernet cable to connect “LAN” port of the modem and “LAN” port of your computer.

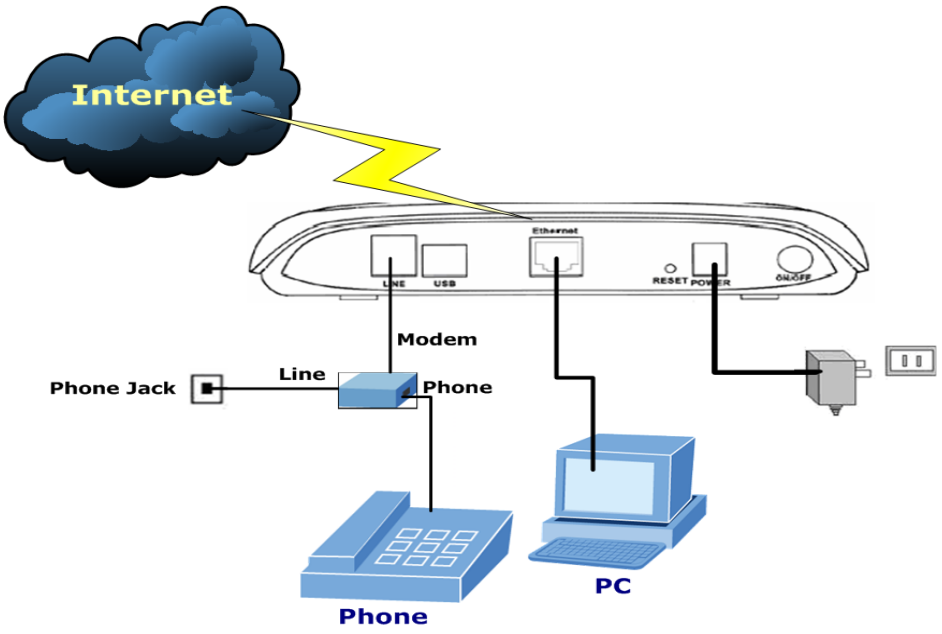


Figure 1 ADE-3410 connection diagram

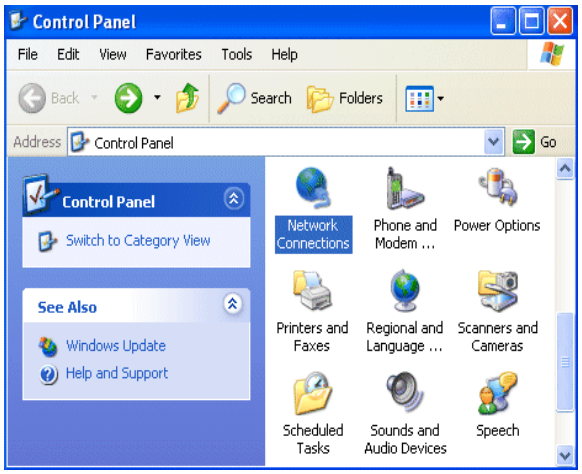
If do not need to connect to the splitter,

- Connect the modem to wall jack with a RJ-11 cable.
- Use Ethernet cable to connect “LAN” port of the modem and network adaptor of your computer.

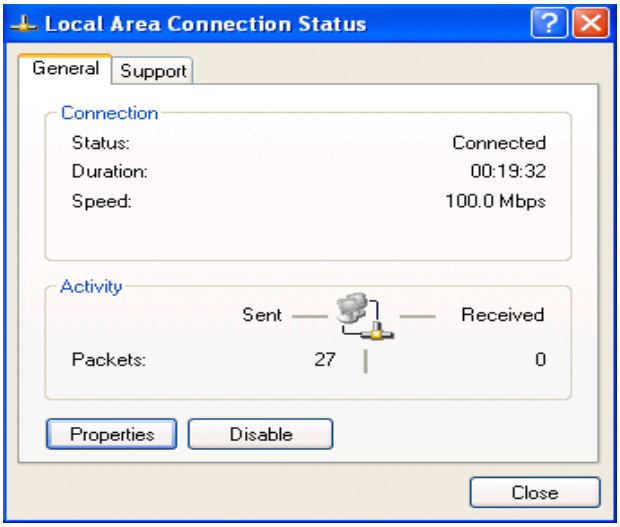
2.3 Configuring the Network Properties

Configuring PC in Windows XP

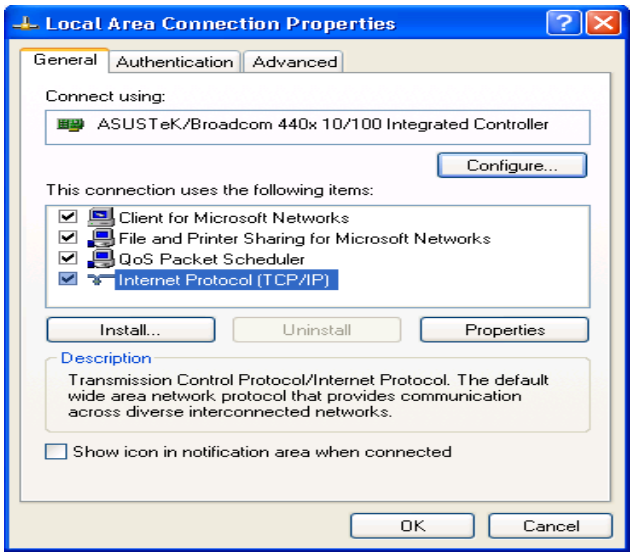
1. Go to **Start / Control Panel (in Classic View)**. In the Control Panel, double-click on **Network Connections**
2. Double-click **Local Area Connection**.



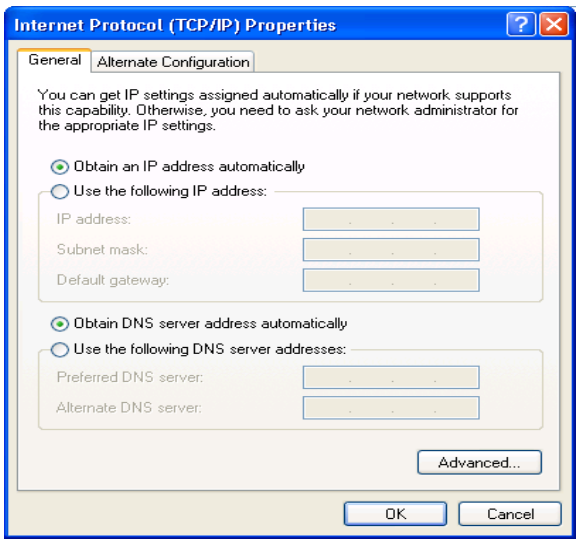
3. In the **Local Area Connection Status** window, click **Properties**.



4. Select **Internet Protocol (TCP/IP)** and click **Properties**.

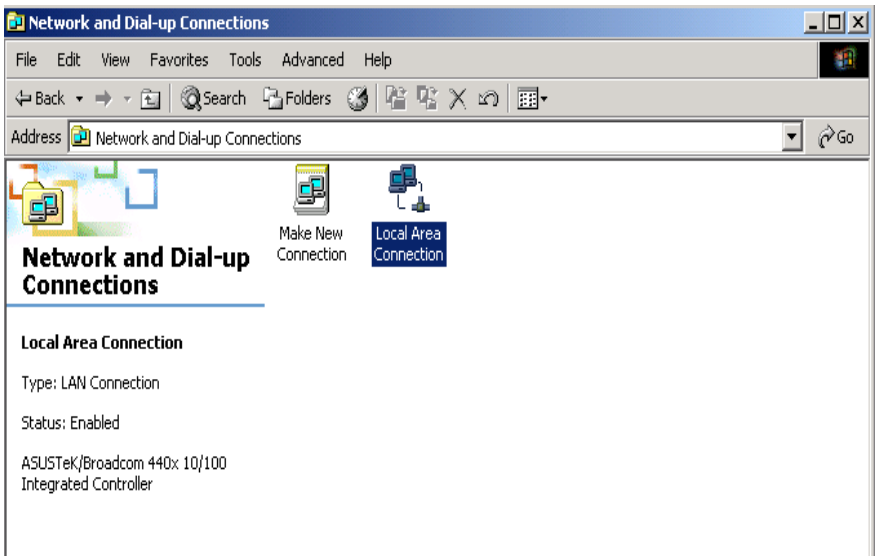


5. Select the **Obtain an IP address automatically** and the **Obtain DNS server address automatically** radio buttons.
6. Click **OK** to finish the configuration.

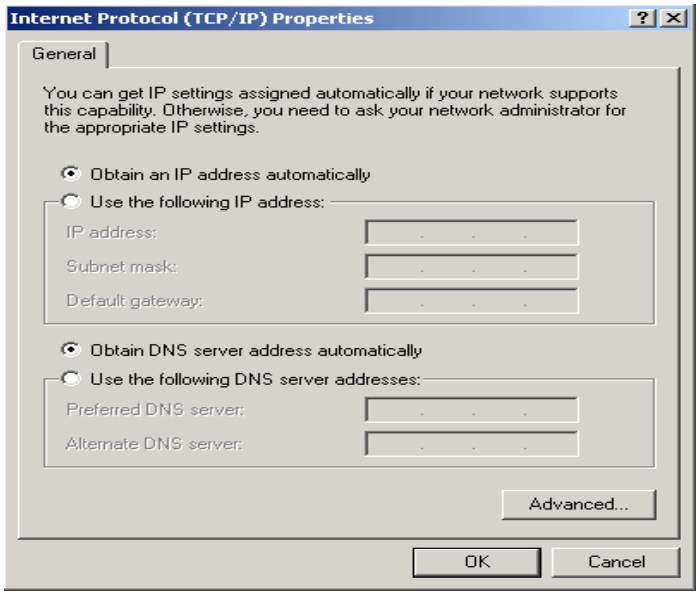

Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Configuring PC in Windows 2000

1. Go to **Start / Settings / Control Panel**. In the Control Panel, double-click on **Network and Dial-up Connections**.
2. Double-click **Local Area Connection**.

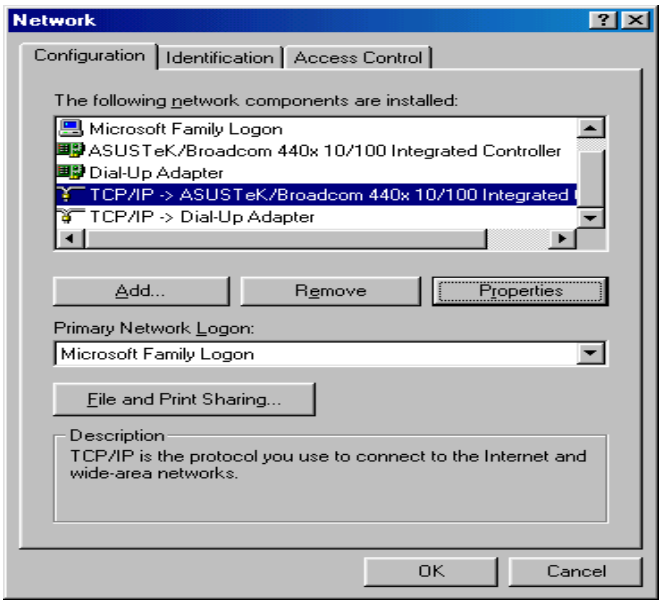


3. In the **Local Area Connection Status** window click **Properties**.
4. Select **Internet Protocol (TCP/IP)** and click **Properties**.
5. Select the **Obtain an IP address automatically** and the **Obtain DNS server address automatically** radio buttons.
6. Click **OK** to finish the configuration.

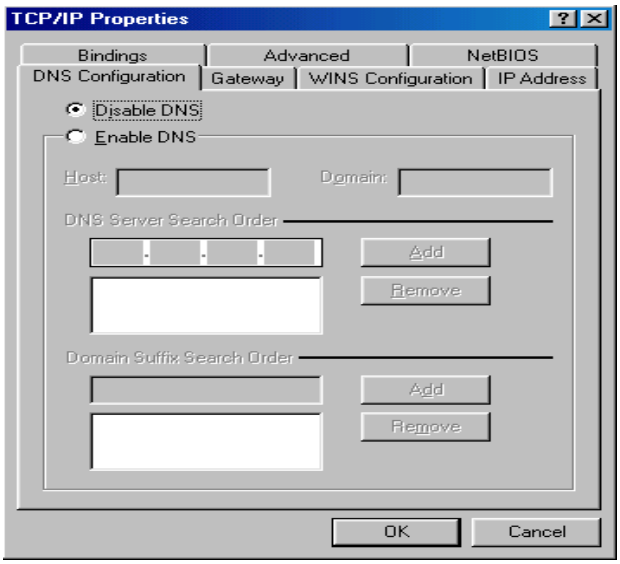

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Configuring PC in Windows 98/Me

1. Go to **Start / Settings / Control Panel**. In the Control Panel, double-click on **Network** and choose the **Configuration** tab.
2. Select **TCP/IP → ASUS Tek/Broadcom 440x 10/100 Integrated Controller,** or the name of your Network Interface Card (NIC) in your PC.



3. Select the **Obtain an IP address automatically** radio button.
4. Then select the **DNS Configuration** tab.
5. Select the **Disable DNS** radio button and click **OK** to finish the configuration.



3. Web Configuration Management

Determine your connection settings

Before you configure the router, you need to know the connection information supplied by your ADSL service provider.

Connecting the ADSL Router to your network

Unlike a simple hub or switch, the setup of the ADSL Router consists of more than simply plugging everything together. Because the Router acts as a DHCP server, you will have to set some values within the Router, and also configure your networked PCs to accept the IP Addresses the Router chooses to assign them.

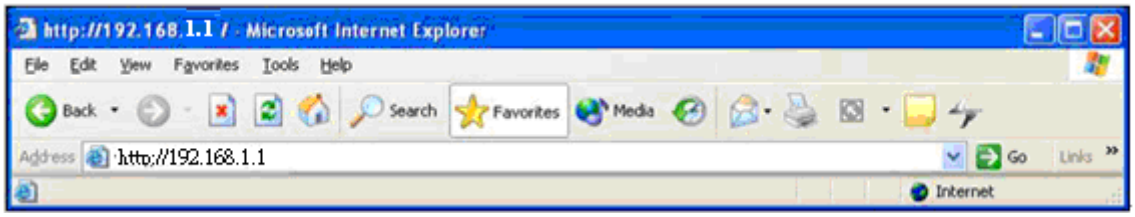
Generally there are several different operating modes for your applications. And you can know which mode is necessary for your system from ISP. These modes are router, bridge, PPPoE+NAT, and PPPoA+NAT.

Configuring with Web Browser

It is advisable to change the administrator password to safeguard the security of your network.

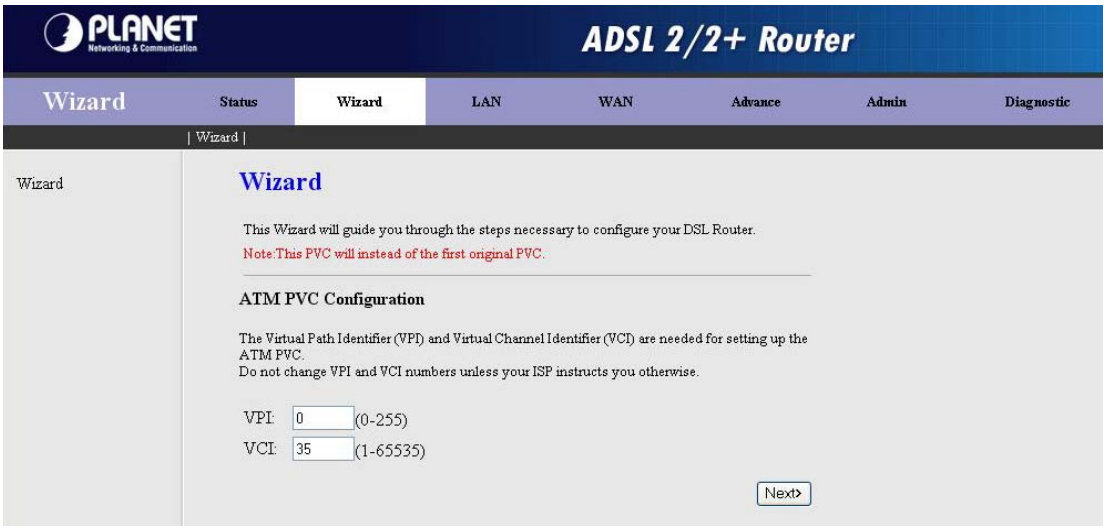
To configure the router, open your browser, type **"http: //192.168.1.1"** into the address bar and click **"Go"** to get to the login page.

Save this address in your Favorites for future reference.



At the User name prompt, type **"admin"**. And the Password prompts, type **"admin"**. You can change these later if you wish. Click **"OK"**.

Once you have powered on ADE-3410, system will boot up and connect to DSLAM automatically. In login dialog, enter **“admin”** as user name and **“admin”** as default password. After log in, you will see the following page. The default screen is **Wizard** setting screen. You can configure the device step by step.

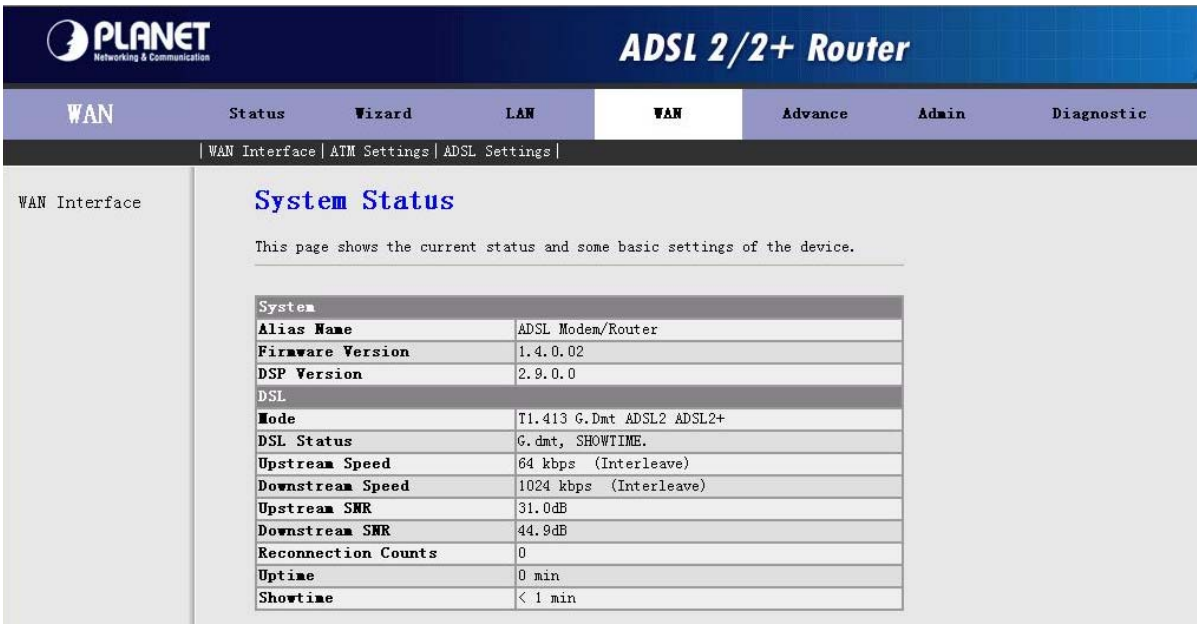

PLANET Networking & Communication
ADSL 2/2+ Router
Wizard
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| Wizard |
Wizard
Wizard
This Wizard will guide you through the steps necessary to configure your DSL Router.
Note:This PVC will instead of the first original PVC.
ATM PVC Configuration
The Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) are needed for setting up the ATM PVC.
Do not change VPI and VCI numbers unless your ISP instructs you otherwise.
VPI: 0 (0-255)
VCI: 35 (1-65535)
Next>

3.1 ADSL Router Status

The Status screen display system information of your Router. It includes the **System**, **LAN**, **WAN**, **Port Mapping**, **Statistic** and **ARP Table**. You can see the information of the router via these screens.

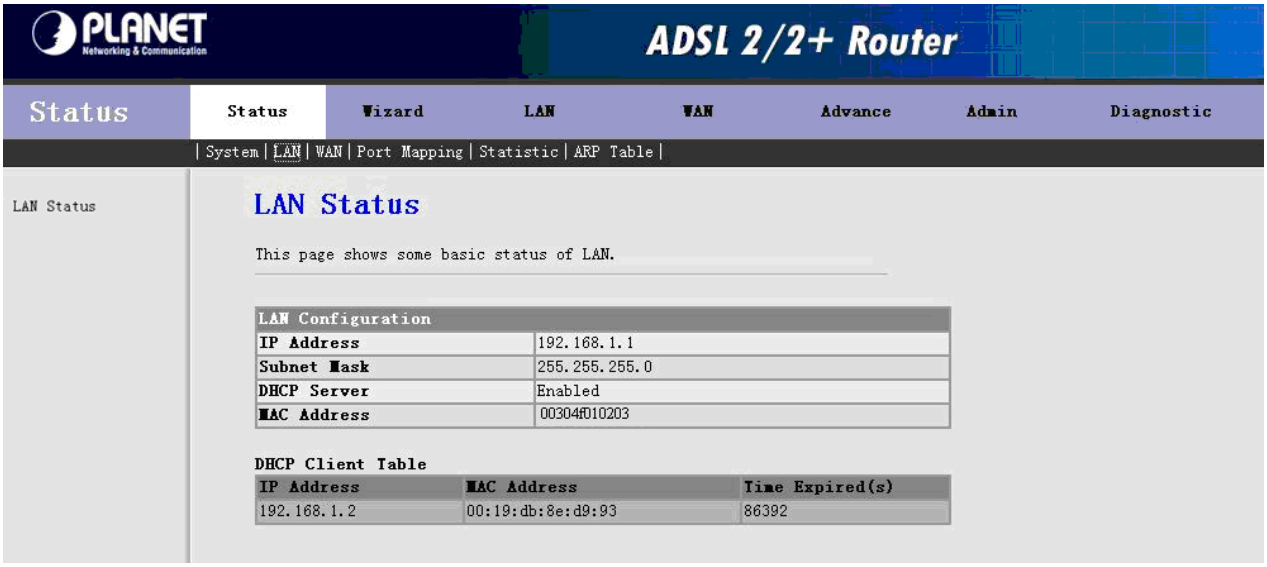
3.1.1 System Status

It shows the Firmware Version, WAN, LAN, ADSL, and MAC address information. Note that these fields are read-only and are not meant for diagnostic purposes.



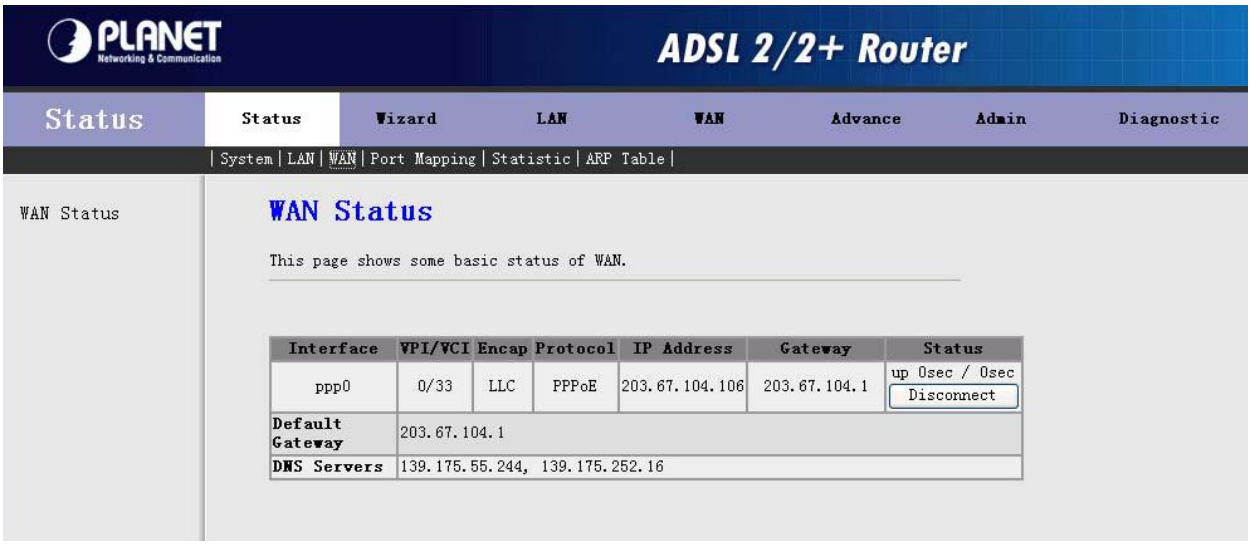
3.1.2 LAN Status

You can see the LAN IP address, Mask, DHCP status, MAC and DHCP Client Table in this screen.



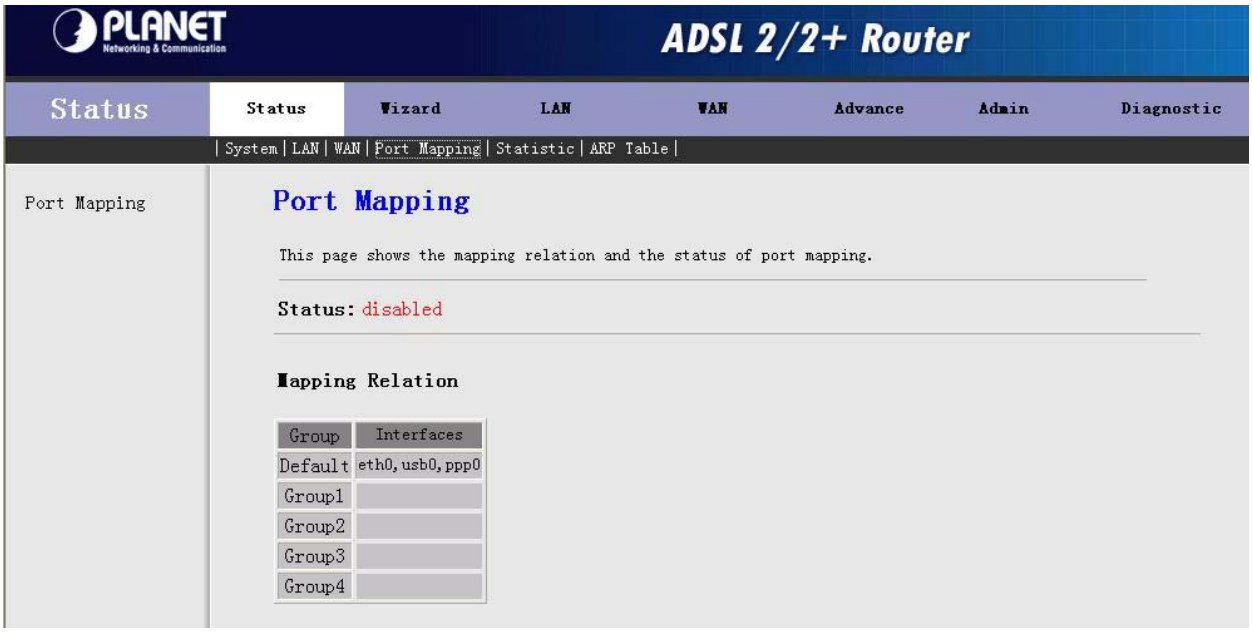
3.1.3 WAN Status

You can see the VPI/VCI, Encapsulation type, Protocol, WAN IP address, Gateway and DNS information in this screen.



3.1.4 Port Mapping

You can see the Port Mapping information in this screen. It includes the status and Mapping Relation.

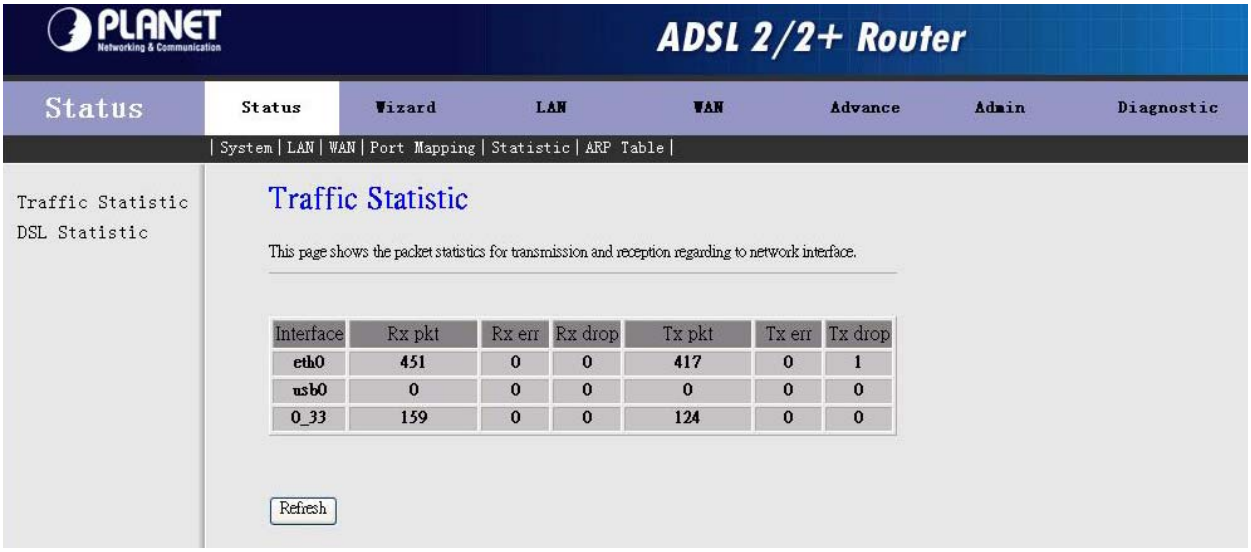


3.1.5 Statistic

You can see the Statistic information in this screen. It includes the Traffic and DSL statistic.

Traffic Statistic Screen

The screen shows the statistic of LAN, WLAN and WAN Port. Click the **Refresh** button to refresh the information.

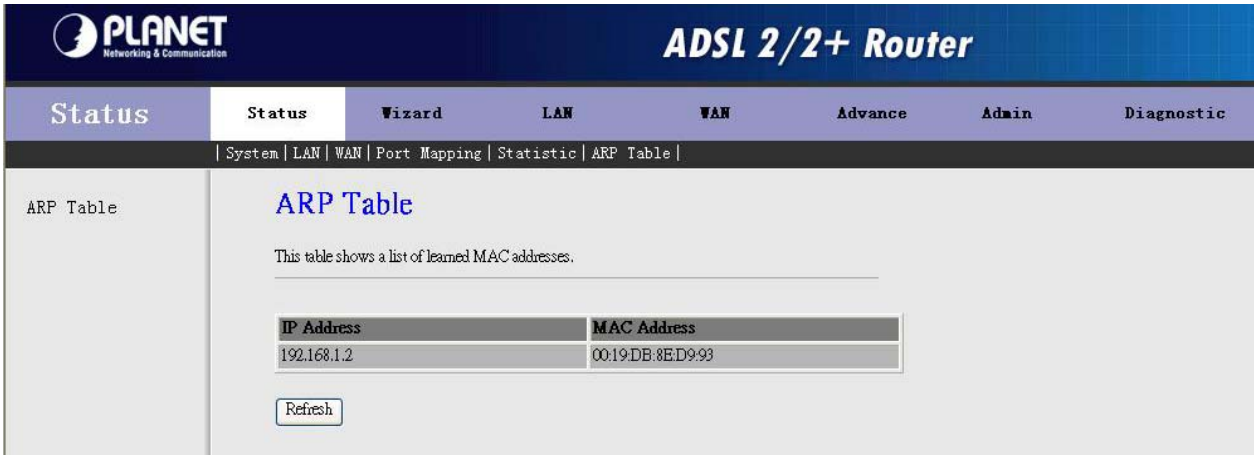


DSL Statistic

The screen shows the ADSL line statistic.

3.1.6 ARP Table

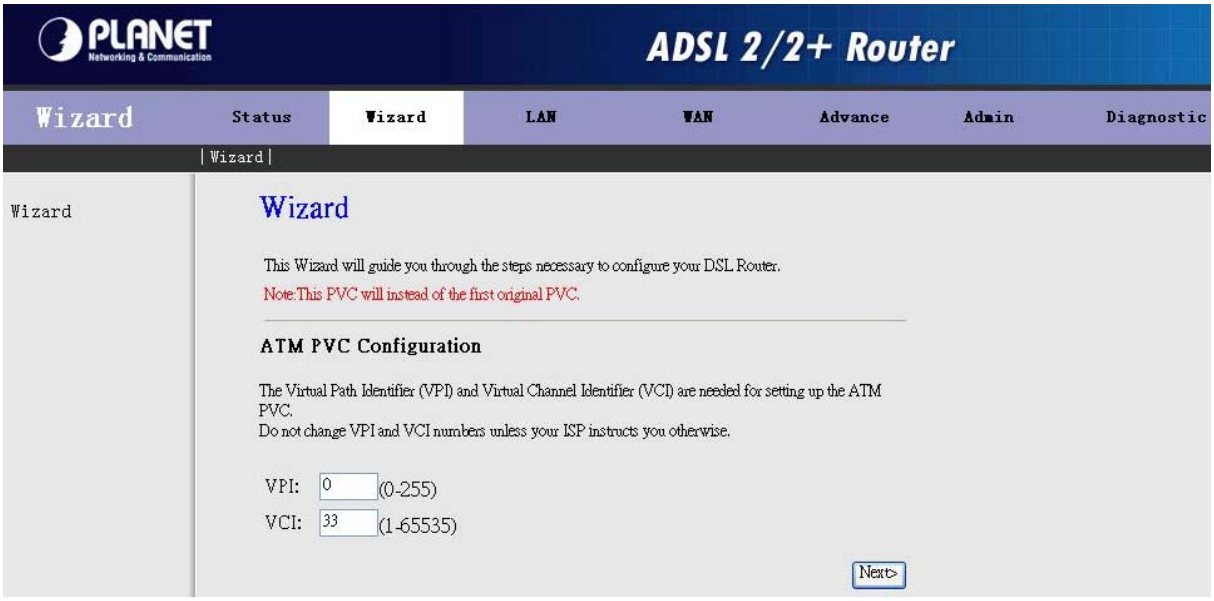
You can see the ARP information in this screen. Click the **Refresh** button to refresh the information.



3.2 Wizard

You can use **"Wizard"** to setup the router as follows, and the router will connect to the Internet via ADSL line.

Step 1. Click **"Wizard"** to get into the quick setup procedures. It will show the below screen. Enter the VPI / VCI value that provided by your ISP.


PLANET Networking & Communication
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Note:This PVC will instead of the first original PVC.
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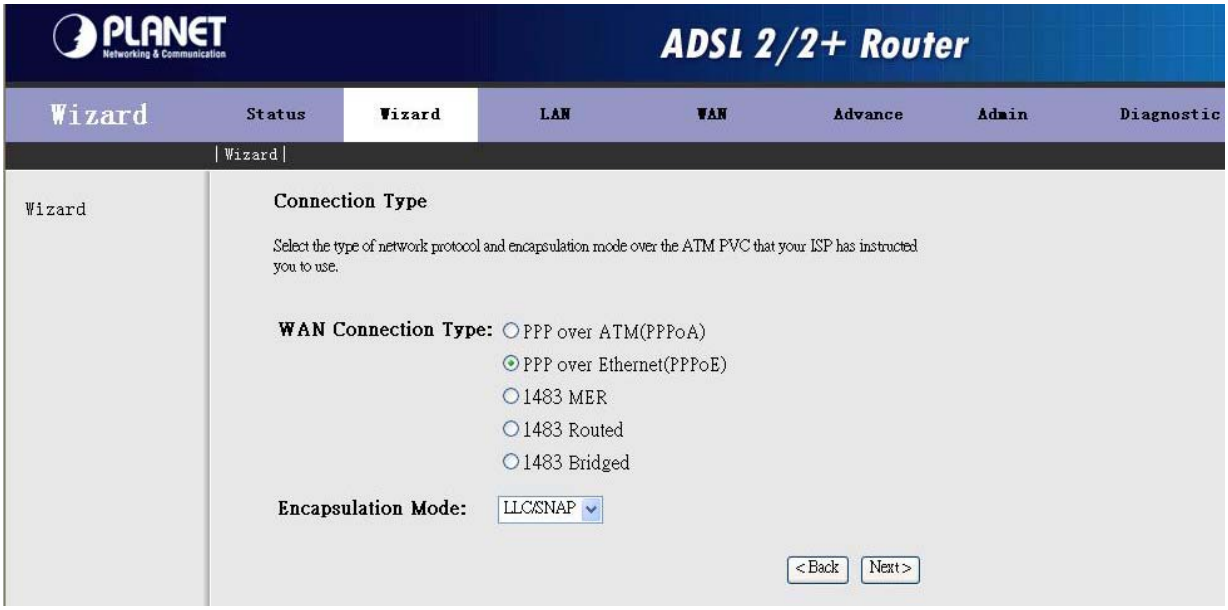
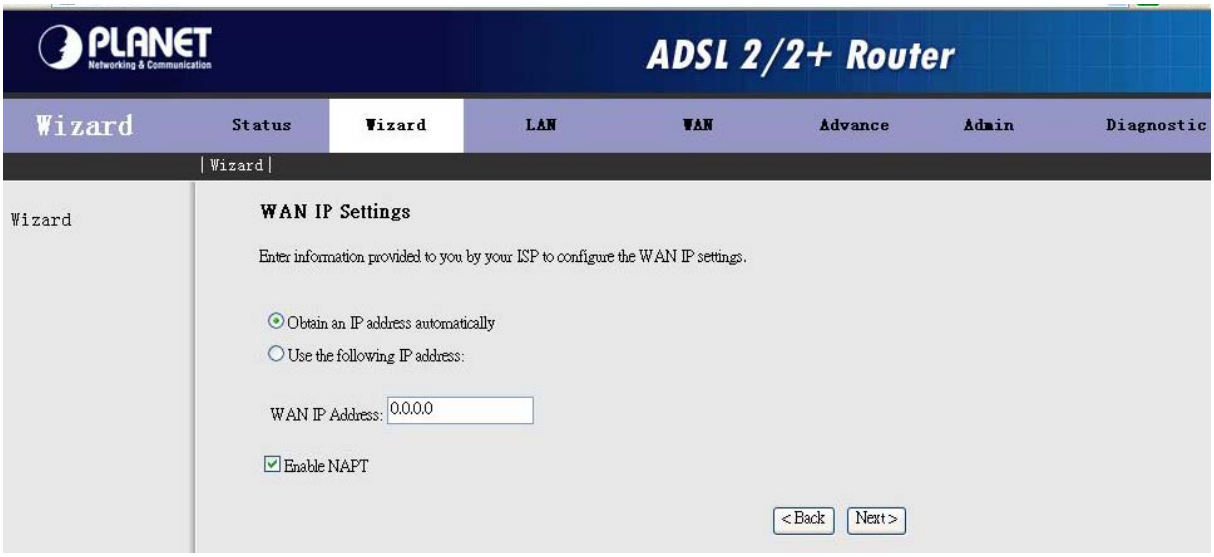
The Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) are needed for setting up the ATM PVC.
Do not change VPI and VCI numbers unless your ISP instructs you otherwise.
VPI: 0 (0-255)
VCI: 33 (1-65535)
Next>

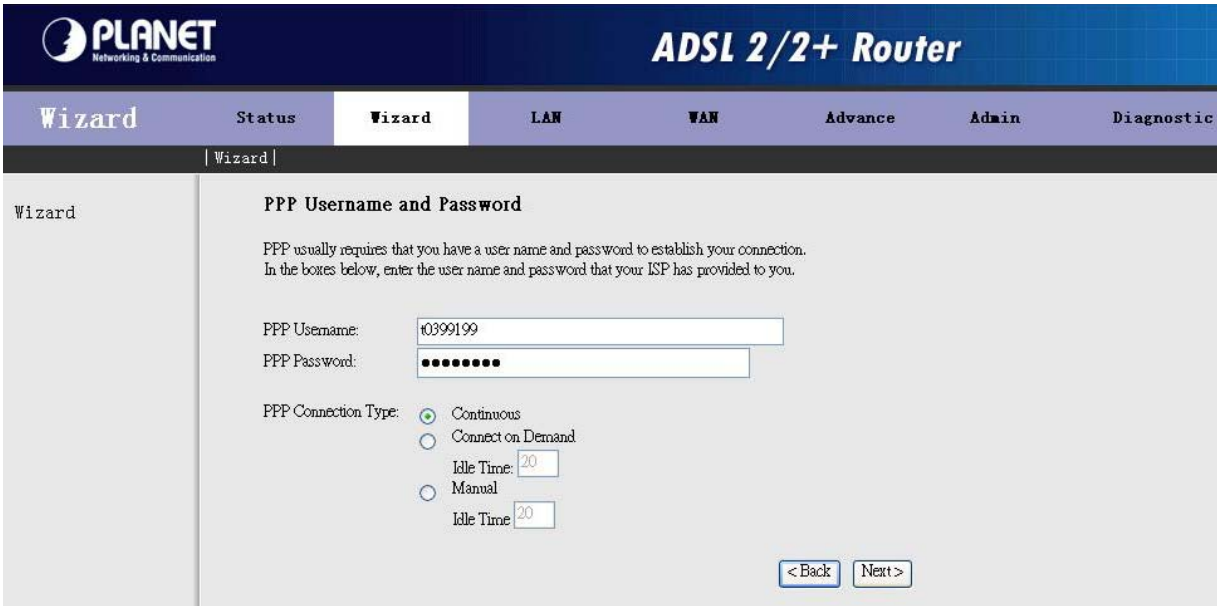
Step 2. Click "**Next**" to select your WAN Connection Type. You can have this information from your Internet Service Provider.



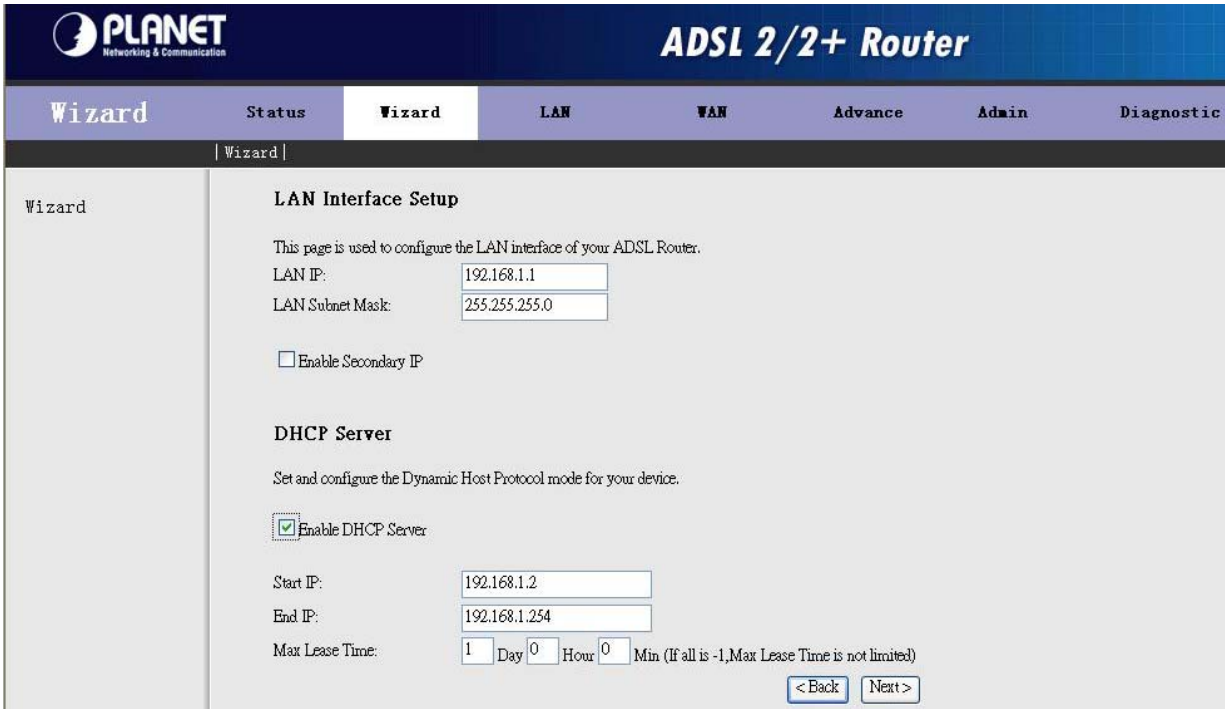
Step 3. Click "**Next**" to setup to select the WAN IP type, and the WAN IP setting is provided by your ISP.



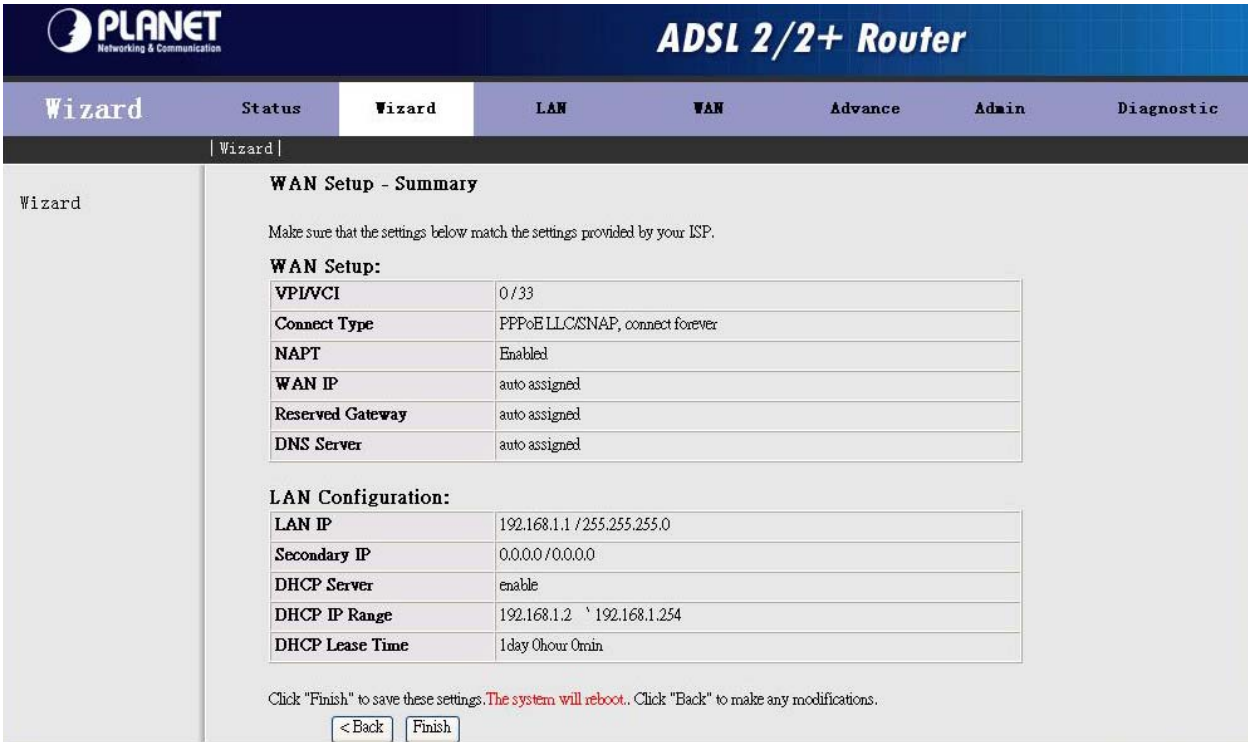
Step 4. Enter the user name and password that your ISP has provided to you. Select the connection type that you want to use. There are three types for your selection – **Continuous**, **Connect on Demand** and **Manual**.



Step 5. Click "**Next**" to setup your LAN IP and DHCP Server setting.



Step 6. Enter the **Finish** to save settings and reboot the device or click **Back** to modify your settings.



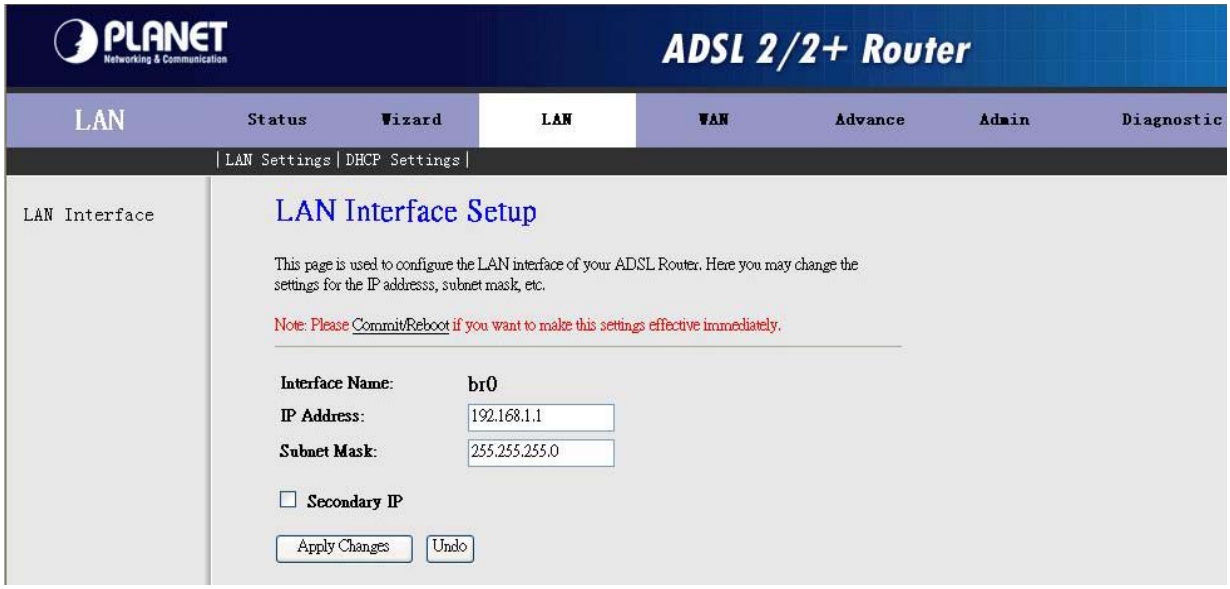
3.3 LAN

The LAN setup includes two parts – LAN Interface and DHCP Settings.

3.3.1 LAN Interface Settings

There are the IP settings of the LAN Interface for the device. These settings may be referred to as Private settings. You may change the LAN IP address if needed. The LAN IP address is provided to your internal network and cannot be seen on the Internet.

You can change the LAN IP address for your requirements. The default LAN IP is **192.168.1.1**. You can also enable the Secondary LAN IP function in this page. It will allow LAN Interface to have the alias IP for management.



IP Address: Enter the IP address of your ADSL router in dotted decimal notation, for example, 192.168.1.1 (default setting).

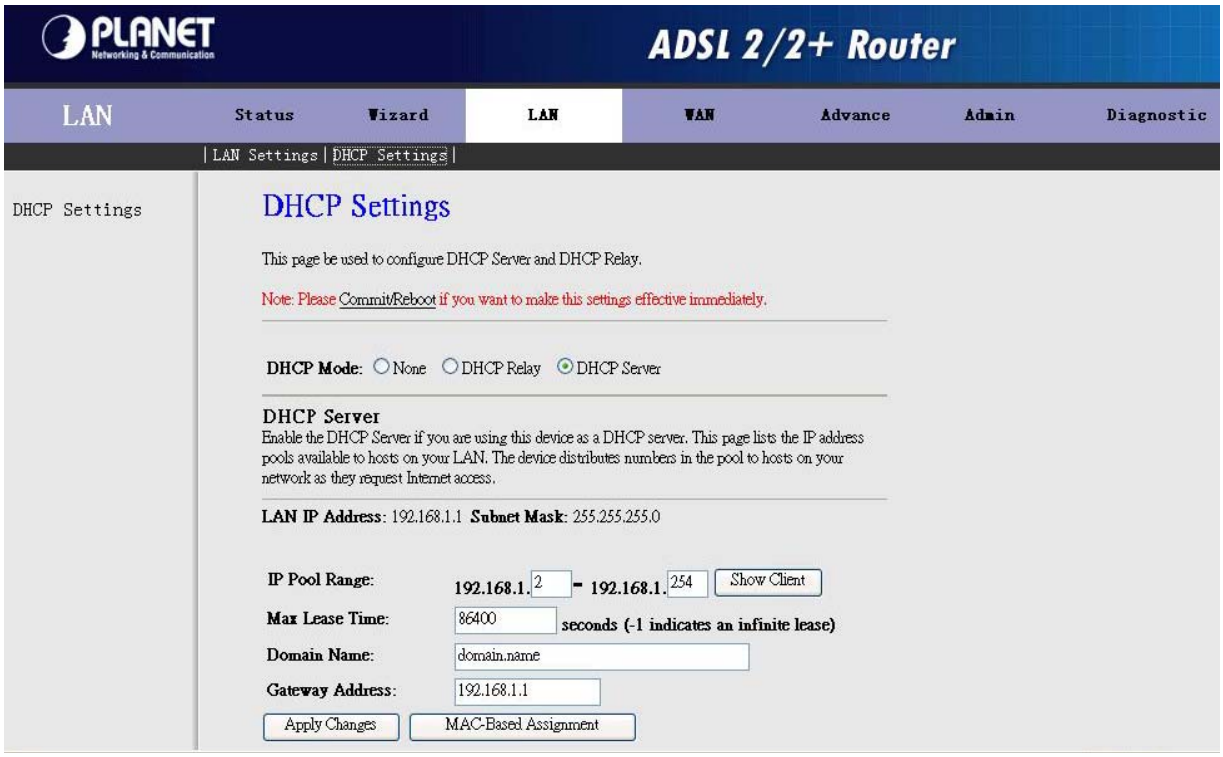
Subnet Mask: Your ADSL router will automatically calculate the subnet mask based on the IP address that you assign. Unless you are implementing sub netting, use the subnet mask computed by the ADSL router.

✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately**

3.3.2 DHCP Server Settings

Enable the DHCP Server if you are using this device as a DHCP server. This page lists the IP address pools available to hosts on your LAN. The device distributes numbers in the pool to hosts on your network as they request Internet access.

You can setup DHCP server to assign IP address to your PC automatically. You can also manually assign an IP according to the MAC address of PC's network card. The ADSL Router supports **DHCP Relay** and **Server** mode, or select **Disable** to disable the DHCP Server.


PLANET
Networking & Communication
ADSL 2/2+ Router
LAN
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| LAN Settings | DHCP Settings |
DHCP Settings
DHCP Settings
This page be used to configure DHCP Server and DHCP Relay.
Note: Please Commit/Reboot if you want to make this settings effective immediately.
DHCP Mode: None DHCP Relay DHCP Server
DHCP Server
Enable the DHCP Server if you are using this device as a DHCP server. This page lists the IP address pools available to hosts on your LAN. The device distributes numbers in the pool to hosts on your network as they request Internet access.
LAN IP Address: 192.168.1.1 Subnet Mask: 255.255.255.0
IP Pool Range: 192.168.1.2 - 192.168.1.254 Show Client
Max Lease Time: 86400 seconds (-1 indicates an infinite lease)
Domain Name: domain.name
Gateway Address: 192.168.1.1
Apply Changes
MAC-Based Assignment

IP Pool Range: Enter the start IP and end IP address you wish to use as the DHCP server's IP assignment.

Show Client: It shows the current client which is connecting with your ADSL router.

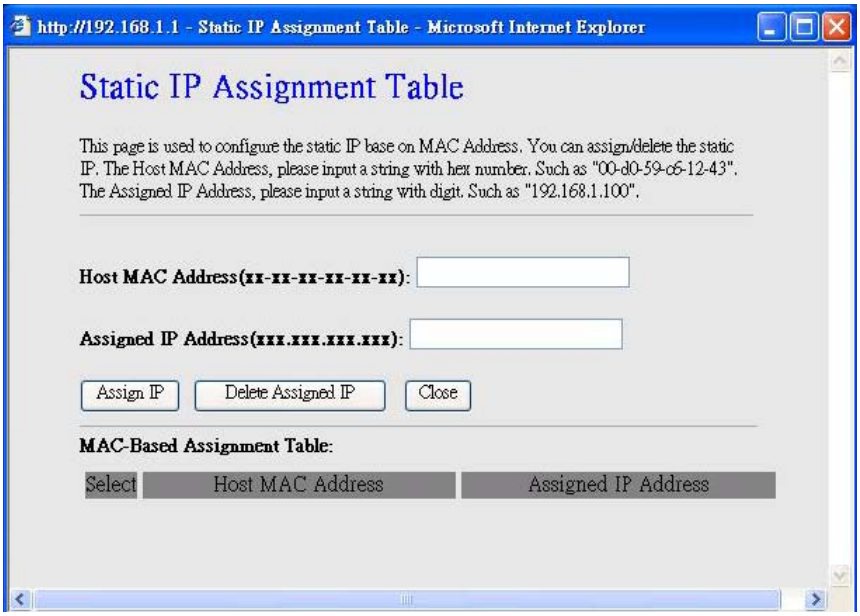
Max Lease Time: Enter the amount of time you wish to lease out a given IP address.

Domain Name: Enter your domain name.

Gateway Address: Enter the default gateway IP address. Default is the LAN IP address.

✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately**

MAC-Base Assignment: Click this button will pop-up a new window to assign IP address according to MAC address.

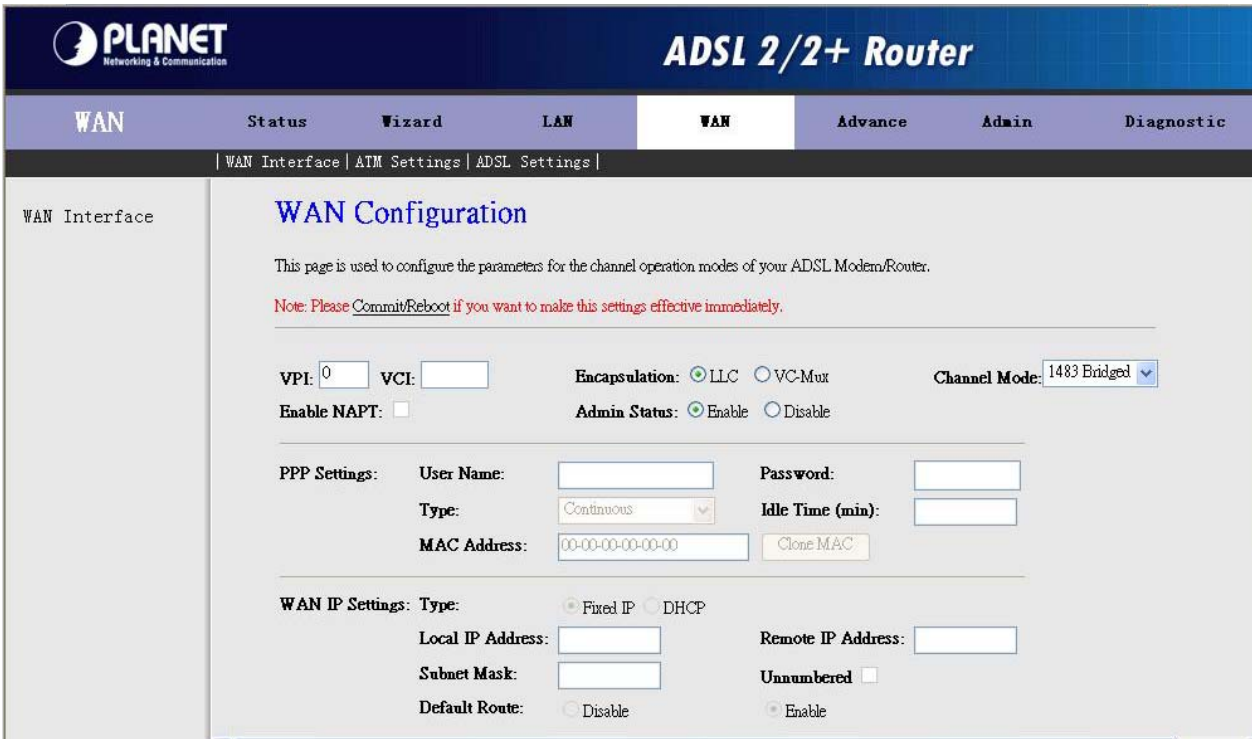

http://192.168.1.1 - Static IP Assignment Table - Microsoft Internet Explorer
Static IP Assignment Table
This page is used to configure the static IP base on MAC Address. You can assign/delete the static IP. The Host MAC Address, please input a string with hex number. Such as "00-d0-59-c6-12-43". The Assigned IP Address, please input a string with digit. Such as "192.168.1.100".
Host MAC Address(xx-xx-xx-xx-xx-xx):
Assigned IP Address(xxx.xxx.xxx.xxx):
Assign IP
Delete Assigned IP
Close
MAC-Based Assignment Table:
Select
Host MAC Address
Assigned IP Address

Enter the MAC address and the IP address that you wish to assign in the fields. Click the **"Assign IP"** button to add it in the MAC-Base Assignment Table.

3.4 WAN

3.4.1 WAN Interface

ADSL 2/2+ Router provide 8 PVCs with different channel mode. You can select the Bridge / MER / PPPoE / PPPoA mode for your environment.


PLANET Networking & Communication
ADSL 2/2+ Router
WAN
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| WAN Interface | ATM Settings | ADSL Settings |
WAN Interface
WAN Configuration
This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router.
Note: Please Commit/Reboot if you want to make this settings effective immediately.
VPI: 0 VCI:
Encapsulation: LLC VC-Mux
Channel Mode: 1483 Bridged
Enable NAPT:
Admin Status: Enable Disable
PPP Settings: User Name: Password:
Type: Continuous Idle Time (min):
MAC Address: 00-00-00-00-00-00 Clone MAC
WAN IP Settings: Type: Fixed IP DHCP
Local IP Address: Remote IP Address:
Subnet Mask: Unnumbered
Default Route: Disable Enable

Bridge Mode

The device can be configured to act as a bridging device between your LAN and your ISP. Bridges are devices that enable 2 or more networks to communicate as if they are 2 segments of the same physical LAN.

ADSL 2/2+ Router is Bridge Mode enabled by factory default.

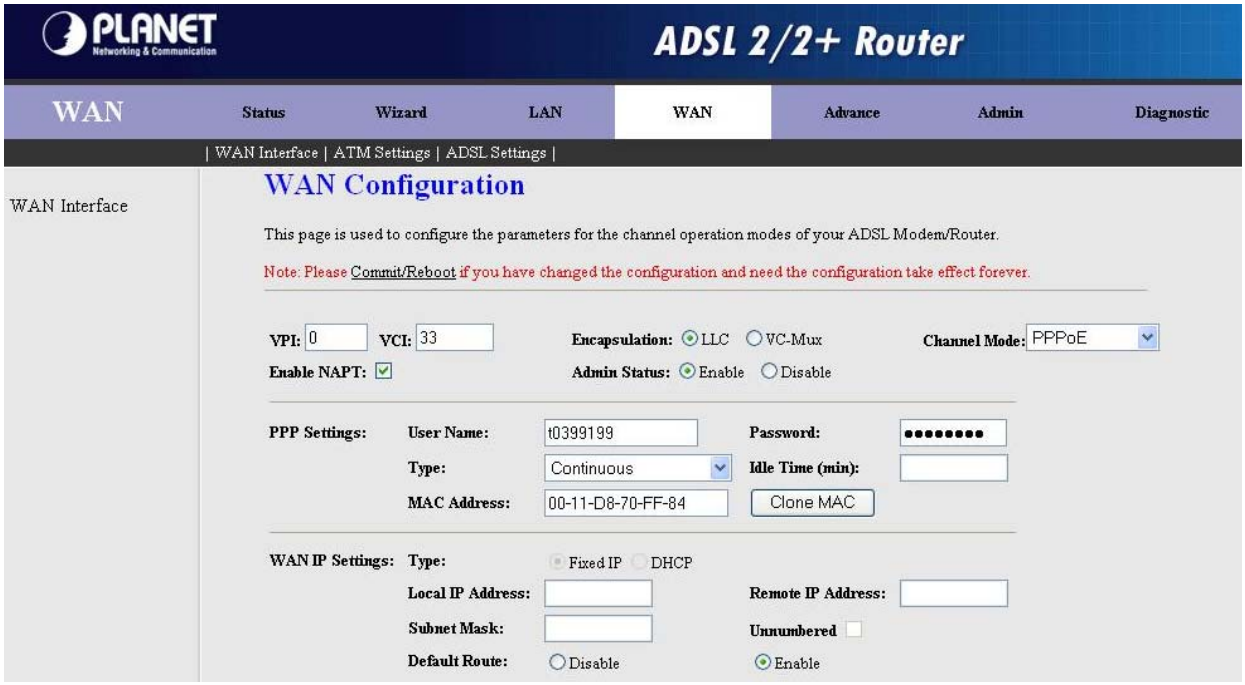
1. Open the WEB page in **"WAN → WAN Interface"**.
2. Select the Channel Mode to **"1483 Bridged"**. Set the parameters **VPI / VCI** and **Encapsulation** mode according to the ISP provided.
3. Click **"Add**" button to add this channel into VC table. You can use the **"Modify"** and **"Delete"** button to manage your PVC.
4. Go to **"Admin → Commit/Reboot"** menu, clink **"Commit and Reboot"** button. The device will reboot and apply this setting.

✍**Note** **"Commit and Reboot"**: Whenever you use the web console to change system settings, the changes are initially placed in temporary storage. To save your changes for future use, you need to use the commit function. This

function saves your changes from RAM to flash memory and then reboot the system.

PPPoE / PPPoA Mode

Select this option if your ISP requires you to use a PPPoE / PPPoA connection. This option is typically used for DSL service. Please enter the proper information in the fields.

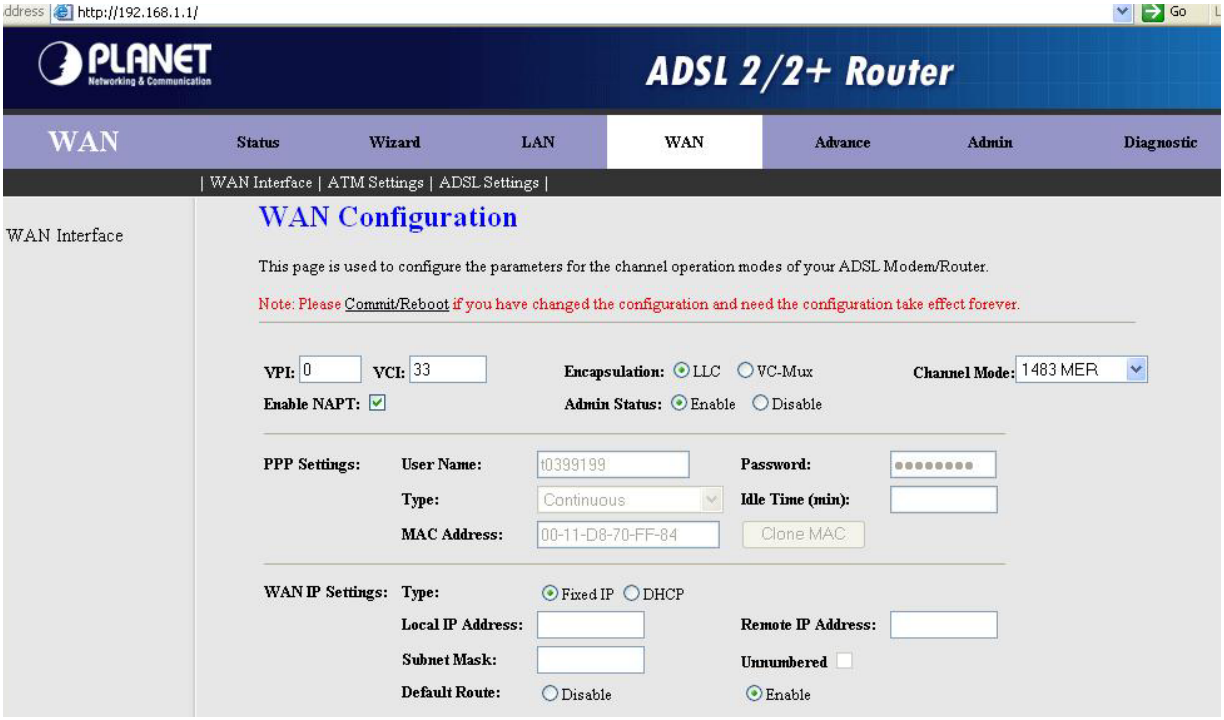


1. Open the WEB page at **"WAN → WAN Interface"**.
2. Select the Channel Mode to **"PPPoE"**. Set the value of **VPI / VCI** and select the **Encapsulation mode** from your ISP.
3. Enter the **User Name / Password** from your ISP.
4. Select the PPP connection type: Continuous, Connect on demand and Manual. If you select **"Connect on demand"** type, specify how many minutes the connection may be idle before it disconnects. If you select **"Manual"** type, use **"Connect"** and **"Disconnect"** buttons to start / stop PPP connection.
5. Click **"Add"** button to add this channel. You can use the **"Modify"** and **"Delete"** button to manage your PVC.
6. Go to **"Admin → Commit/Reboot"** menu, clink **"Commit and Reboot"** button. The device will reboot and apply this setting.

Your ISP should provide the above information. Note that you must enter the user name exactly as your ISP assigned it. If the assigned name is in the form of user@domain where domain identifies a service name, enter it exactly as given.

MER Mode

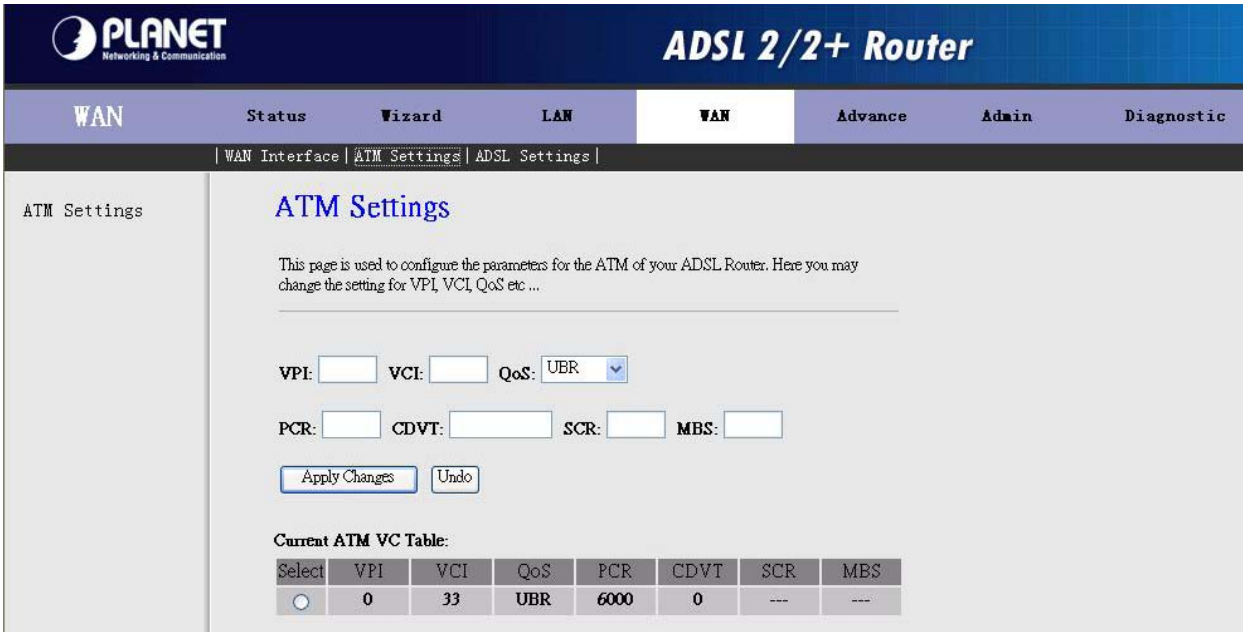
Select this option to set static IP information. You will need to enter in the encapsulation type, IP address, subnet mask, and gateway address provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which is 4 IP octets separated by a dot (x.x.x.x). The Router will not accept the IP address if it is not in this format.



1. Open the WEB page at **"WAN → WAN Interface"**.
2. Select the Channel Mode to **"1483 MER"**. Set the value of **VPI / VCI** and select the **Encapsulation mode** from your ISP.
3. Select the WAN IP type: **DHCP** or **Fixed IP**.
4. Select **Fixed IP** to set static IP information. You will need to enter in the IP address, subnet mask, and gateway address provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are 4 IP octets separated by a dot (x.x.x.x). The Router will not accept the IP address if it is not in this format.
5. Select **DHCP** if your ISP provides you an IP address automatically. The router will obtain an IP address automatically.
6. Click **"Add"** button to add this channel. You can use the **"Modify"** and **"Delete"** button to manage your PVC.
7. Go to **"Admin → Commit/Reboot"** menu, clink **"Commit and Reboot"** button. The device will reboot and apply this setting

3.4.2 ATM Settings

The page is for ATM PVCs' QoS mode setting. The device supports 4 QoS mode — UBR / CBR /rt-VBR / nrt-VBR. You can click the **"ATM Setting"** on the WAN Interface setting screen.



ATM QoS: Select the Quality of Service types for this Virtual Circuit. The ATM QoS types include CBR(Constant Bit Rate), VBR(Variable Bit Rate) and UBR (Unspecified Bit Rate). These QoS types are all controlled by the parameters specified below, including PCR, SCR, and MBS.

CBR is for connections that support constant rates of data transfer. The only parameter you need to worry about in CBR is PCR.

UBR is for connections that have variable traffic. The only parameter you need to worry about in UBR is PCR.

rt-VBR is for connections that, while having variable traffic, require precise timing between traffic source and destination. PCR, SCR and MBS must all be set for rt-VBR.

nrt-VBR is for connections that have variable traffic, do not require precise timing, but still require a set bandwidth availability. PCR, SCR and MBS must all be set for nrt-VBR.

PCR: Peak Cell Rate (PCR) is the maximum rate at which the sender can send cells. This parameter may be lower (but not higher) than the maximum line speed. 1 ATM cell is 53 bytes (424 bits), so a maximum speed of 832 Kbps gives a maximum PCR of 1962 cells/sec. This rate is not guaranteed because it is dependent on the line speed.

SCR: Sustained Cell Rate (SCR) is the mean cell rate of a bursty, on-off traffic source that can be sent at the peak rate, and a parameter for burst-type traffic. SCR may not be greater than the PCR; the system default is 0 cells/sec.

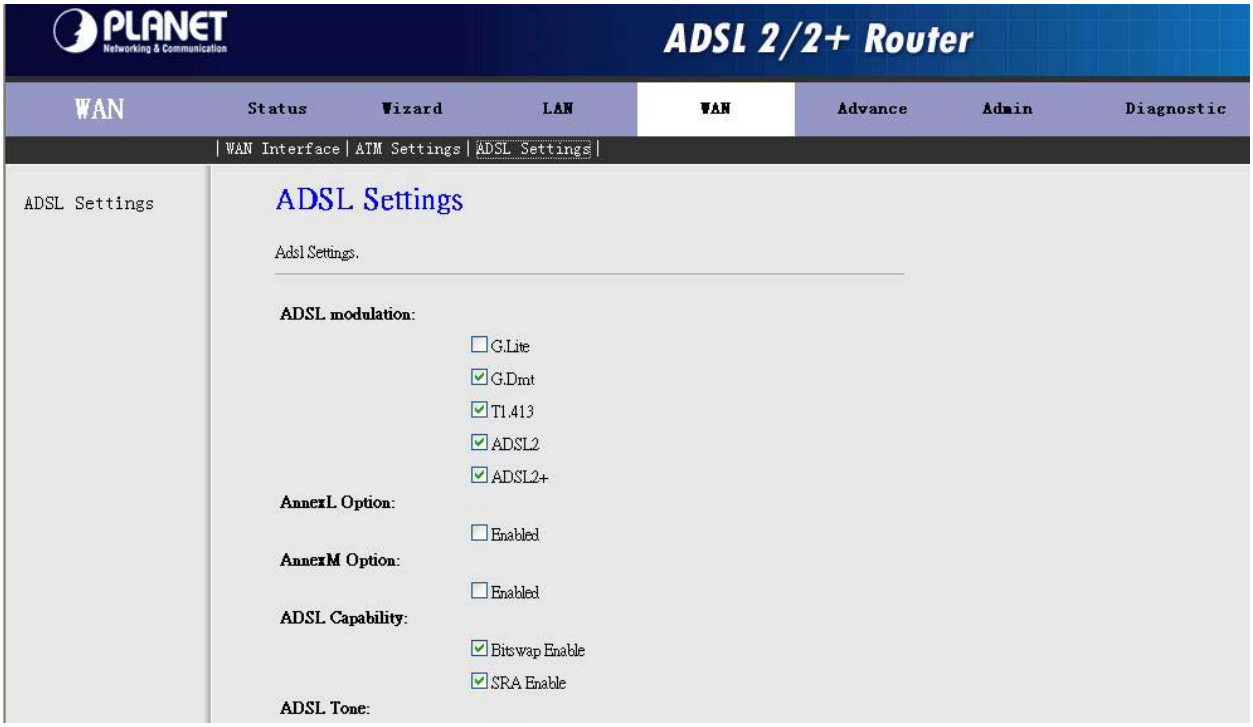
MBS: Maximum Burst Size (MBS) is the maximum number of cells that can be sent at the PCR. After MBS is reached, cell rates fall below SCR until cell rate averages to the SCR again. At this time, more cells (up to the MBS) can be sent at the PCR again.

"Apply Changes": Set new PVC QoS mode and values for the selected PVC.

"Undo": Discard your settings.

3.4.3 ADSL Settings

You can set ADSL connect mode here. It supports G.Lite, G.Dmt, T1.413, ADSL2 and ADSL2+. You can also set Annex L, M Option, ADSL Capability and ADSL Tone Mask in this page.



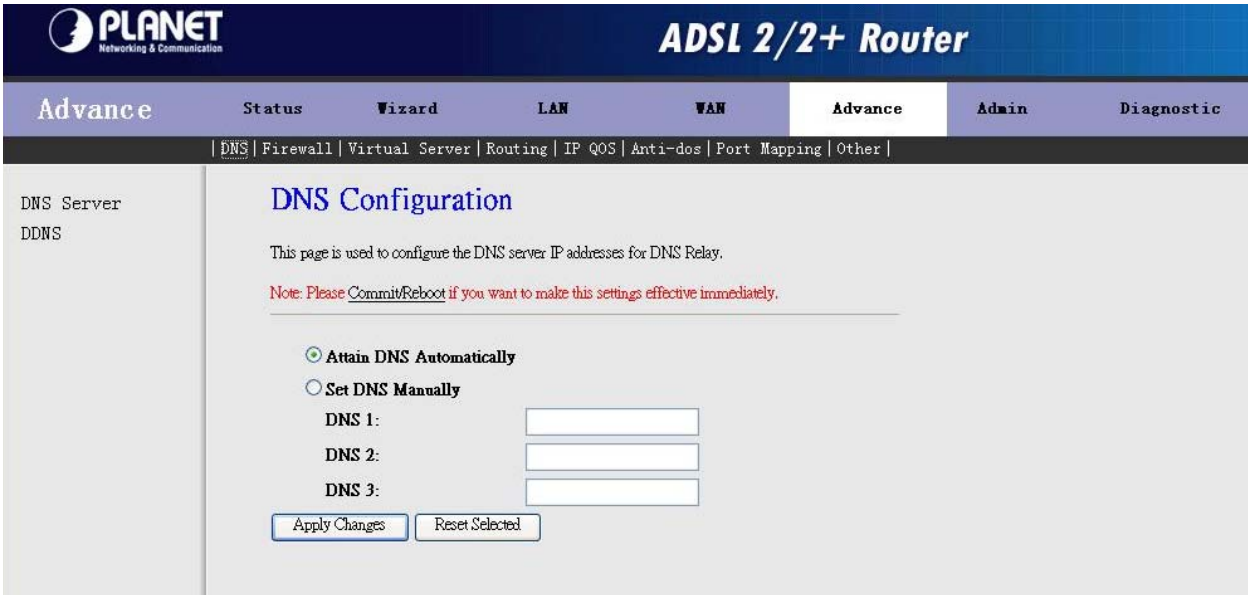
3.5 Advance

You can configure different advanced services in this part. It includes **DNS, Firewall, Virtual Server, Routing, IP QoS, Anti-DoS, Port Mapping** and **Other.**

3.5.1 DNS

In this screen, you can modify the DNS server settings. It includes the DNS and DDNS functions.

DNS Configuration



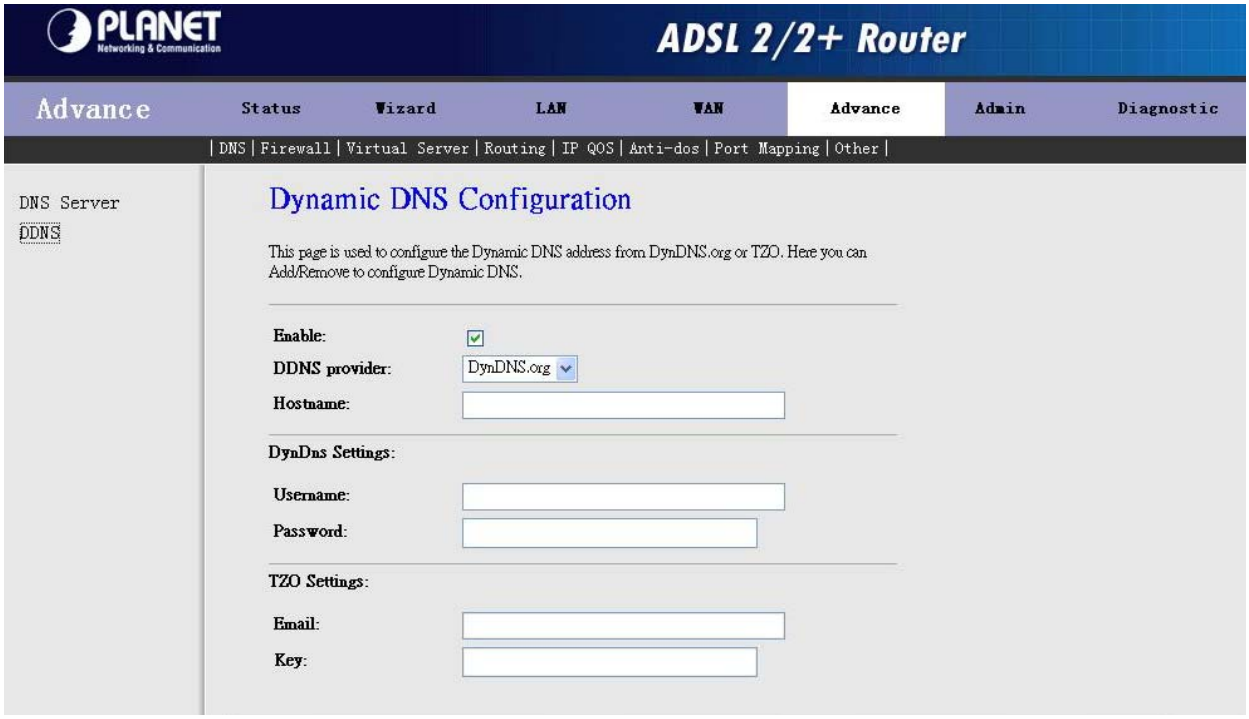
Attain DNS Automatically: If **"Attain DNS Automatically"** checkbox is selected, this router will accept the first received DNS assignment from one of the PPPoA, PPPoE or MER/DHCP enabled PVC(s) during the connection establishment.

Set DNS Manually: Select this method; you need to enter the DNS Server IP address manually. You can enter three entries in these fields.

DDNS

In this screen, you can modify the Dynamic DNS settings.

The Dynamic DNS service allows you to alias a dynamic IP address to a static hostname in any of the many domains, allowing your DSL router to be more easily accessed from various locations on the Internet.



Enable: Enable or disable DDNS.

DDNS Provider: Choose the option of provider. It supports the DynDns and TZO.

Hostname: Type the domain name assigned to your ADSL by your Dynamic DNS provider.

DynDns Settings:

Username: Type your user name.

Password: Type the password assigned to you.

TZO Settings:

E-mail Address: Type your e-mail address.

Key: Type your key number.

Click the **"Add"** to add this DDNS entry or click **"Remove"** to delete the DDNS entry.

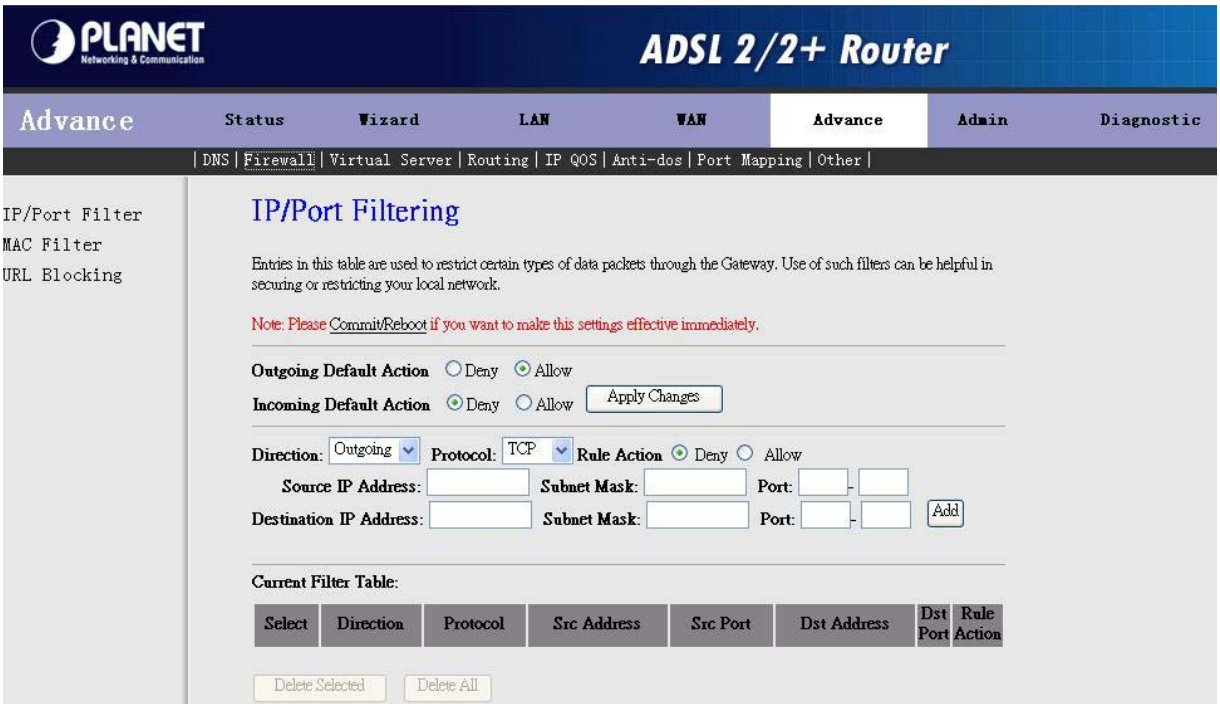
✍Note **Please Commit/Reboot if you want to make this settings effective immediately**

3.5.2 Firewall

Firewall is an advance feature used to deny or allow traffic from passing through the device. ADSL router support some firewall related functions. It includes the IP/Port Filter, MAC Filter and URL Blocking.

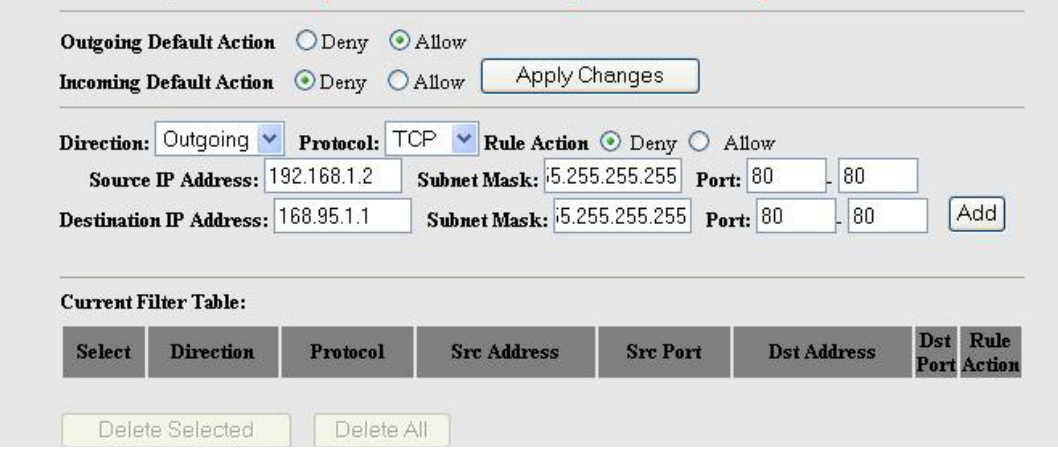
3.5.2.1 IP/Port filtering

Use the IP/Port filters to deny / allow particular LAN IP addresses from accessing the Internet. You can deny / allow specific port numbers or all ports for a specific IP address.



Default Setting: Specify default filtering rule action to be either ***Deny*** or ***Allow*** if no other rules can be applied. You can specify the direction on **Outgoing** and **Incoming**. Click the **"Apply Changes"** to apply your setting. By default, all outgoing IP traffic from LAN is allowed, and all IP traffic from WAN is deny.

Click the **"Add Rule"** button to show filtering rule field, enter the rule information that you want to use.



Rule Action: Select the Deny or Allow for your rules.

Direction: Select the Outgoing or Incoming.

Protocol: Set protocol type to be blocked or allowed.

Src IP Address / Mask / Port: Set the subnet of source side computers to be denied / allowed access to the destination side computers. An individual source IP address can be designated for filtering.

If all IP addresses must be filtered, leave this box blank. Enter the IP/subnet mask address in the form of XXX.XXX.XXX.XXX. Example: The IP address is 192.168.1.2 and the net mask 255.255.255.255. The IP address 0.0.0.0 and the net mask 255.255.255.255 is not care.

Dst IP Address / Mask / Port: Set the subnet of destination side computers to be denied/allowed access to the source side computers. The destination IP address to be filtered is set. If all IP addresses must be filtered, leave this box blank. Enter the IP/subnet mask address in the form of XXX.XXX.XXX.XXX. Example: The IP address is 168.95.1.1 and the net mask 255.255.255.255.The IP address 0.0.0.0 and the net mask 255 .255.255.255 is not care.

Click **"Add"** button to add this filtering rule.

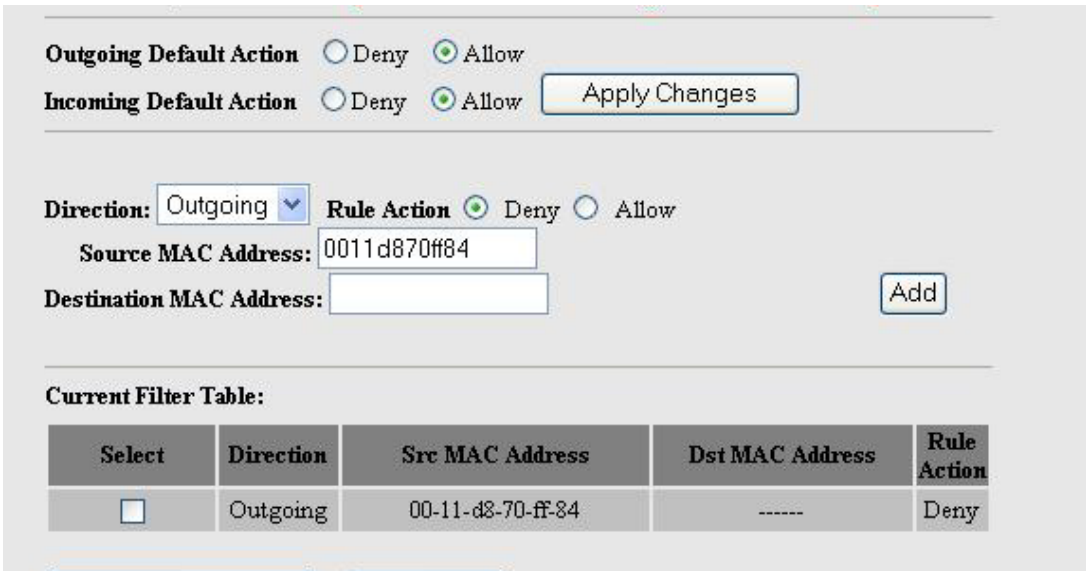
✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately**

3.5.2.2 MAC Filtering

Use the MAC filters to deny computers within the local area network from accessing the Internet. Entries in Filter Table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

Default Action: Specify default filtering rule action to be either *Deny* or *Allow* if no other rules can be applied. Click the **"Apply Changes"** to apply your setting. By default, all Outgoing and Incoming action is allowed.

Click the **"Add Rule"** button to show filtering rule field, enter the rule information that you want to use.



Rule Action: Specify this filtering rule action to be either *Deny* or *Allow*.

Direction: Set direction type to be blocked or allowed.

Src MAC Address: Set the MAC address of source side computers to be denied/allowed access to the destination side computers.

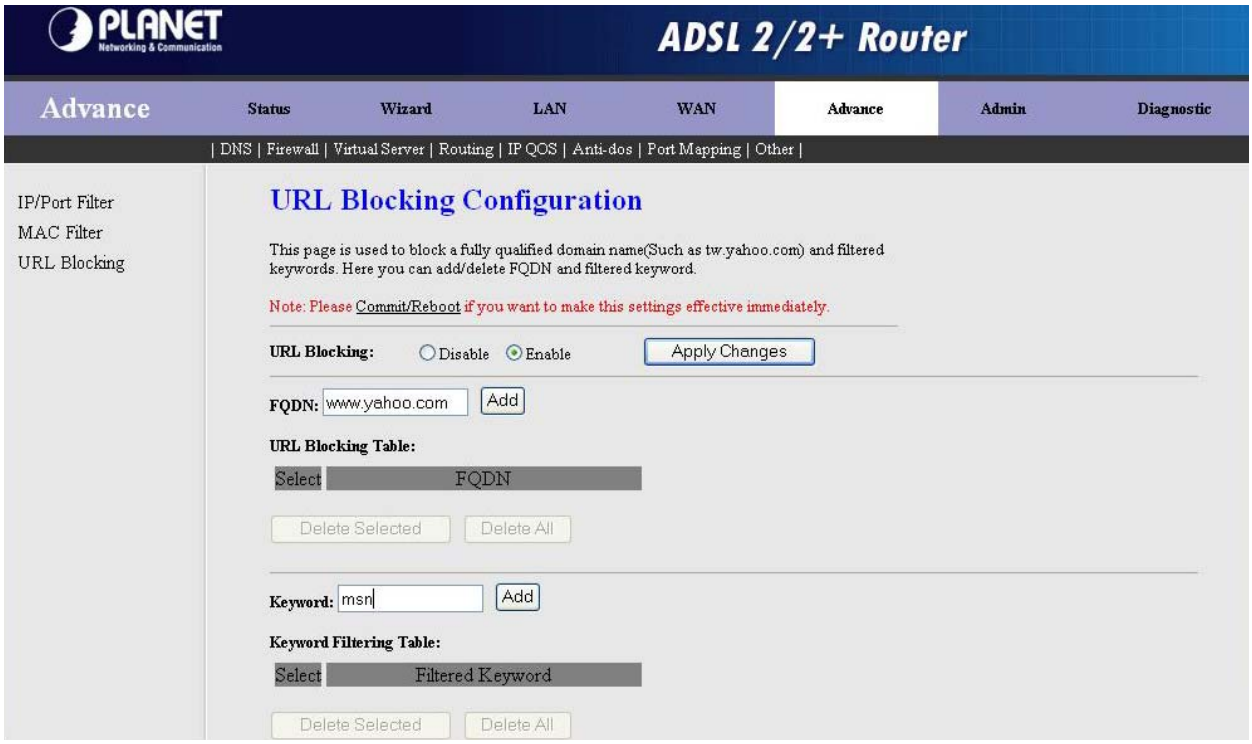
Dst MAC Address: Set the MAC address of destination side computers to be denied/allowed access to the source side computers.

Click **"Add"** button to add this filtering rule.

✍Note	**Please Commit/Reboot if you want to make this settings effective immediately**

3.5.2.3 URL Block

This page is used to configure the Blocked FQDN (Such as tw.yahoo.com) and filtered keyword. Here you can add / delete FQDN and filtered keyword.


PLANET
Networking & Communication
ADSL 2/2+ Router
Advance
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| DNS | Firewall | Virtual Server | Routing | IP QOS | Anti-dos | Port Mapping | Other |
IP/Port Filter
MAC Filter
URL Blocking
URL Blocking Configuration
This page is used to block a fully qualified domain name(Such as tw.yahoo.com) and filtered keywords. Here you can add/delete FQDN and filtered keyword.
Note: Please Commit/Reboot if you want to make this settings effective immediately.
URL Blocking: Disable Enable Apply Changes
FQDN: www.yahoo.com Add
URL Blocking Table:
Select FQDN
Delete Selected Delete All
Keyword: msn Add
Keyword Filtering Table:
Select Filtered Keyword
Delete Selected Delete All

URL Blocking: Enable or Disable URL Blocking. Click the **"Apply Changes"** to apply your setting.

URL Blocking: Enter the FQDN in the field and click the **"Add FQDN"** button to add this rule.

Keyword Filtering: Enter the keyword which you want to block. Click **"Add keyword"** button to add this filtering rule.

✍Note **Please Commit/Reboot if you want to make this settings effective immediately**

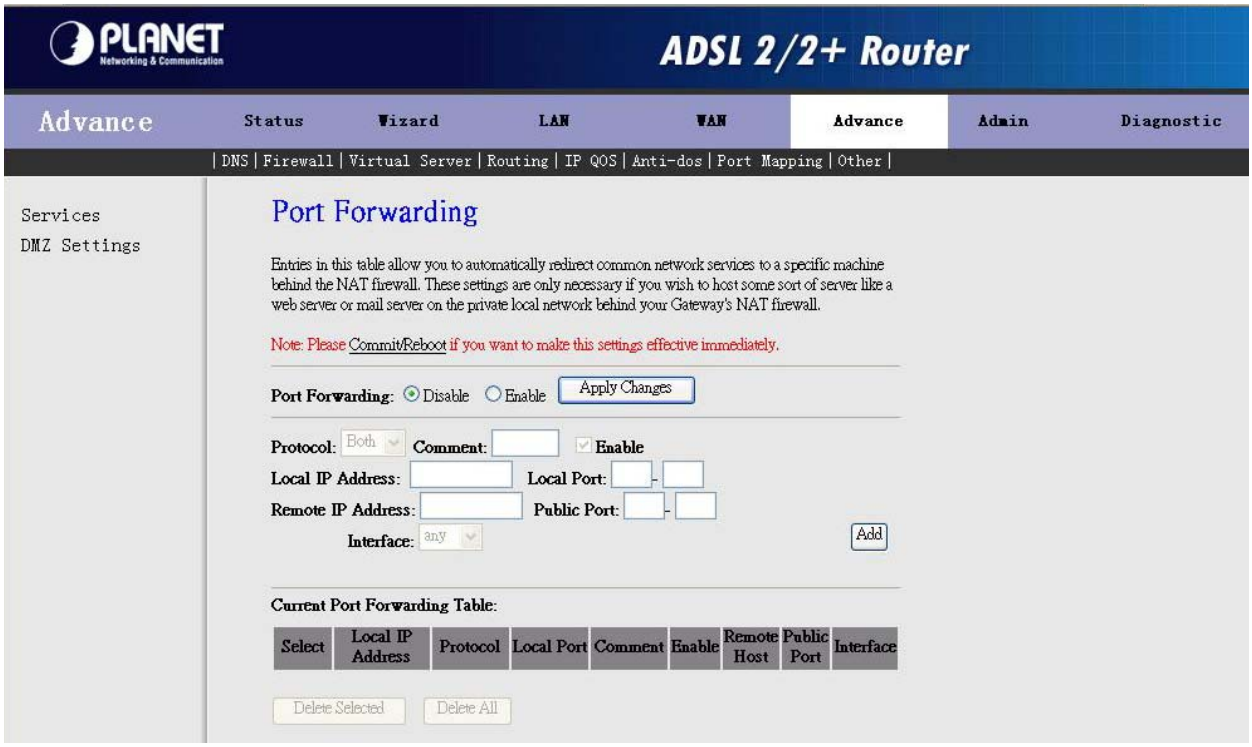
3.5.3 Virtual Server

The Virtual Server is the server or server(s) behind NAT (on the LAN), for example, Web server or FTP server, that you can make visible to the outside world even though NAT makes your whole inside network appear as a single machine to the outside world.

The Virtual Server includes two parts – **Services** and **DMZ**.

3.5.3.1 Services

Click **"Add"** to show the Virtual Server setting screen.


PLANET Networking & Communication
ADSL 2/2+ Router
Advance
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| DNS | Firewall | Virtual Server | Routing | IP QOS | Anti-dos | Port Mapping | Other |
Services
DMZ Settings
Port Forwarding
Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.
Note: Please Commit/Reboot if you want to make this settings effective immediately.
Port Forwarding: Disable Enable Apply Changes
Protocol: Both Comment: Enable
Local IP Address: Local Port:
Remote IP Address: Public Port:
Interface: any
Add
Current Port Forwarding Table:
Select
Local IP Address
Protocol
Local Port
Comment
Enable
Remote Host
Public Port
Interface
Delete Selected
Delete All

Protocol: Choose proper protocols for your services.

Comment: You can type some description for the service.

Local IP Address: When you intend to assign a specified address and must be running the appropriate Server software, enter the server IP address here.

Remote IP Address: When you intend the specified remote client access the virtual server, enter the remote IP address here.

Local Port start / end: Enter the range of port numbers which the Server software is configured to use. If only one port number is required, enter it in both the start and finish fields.

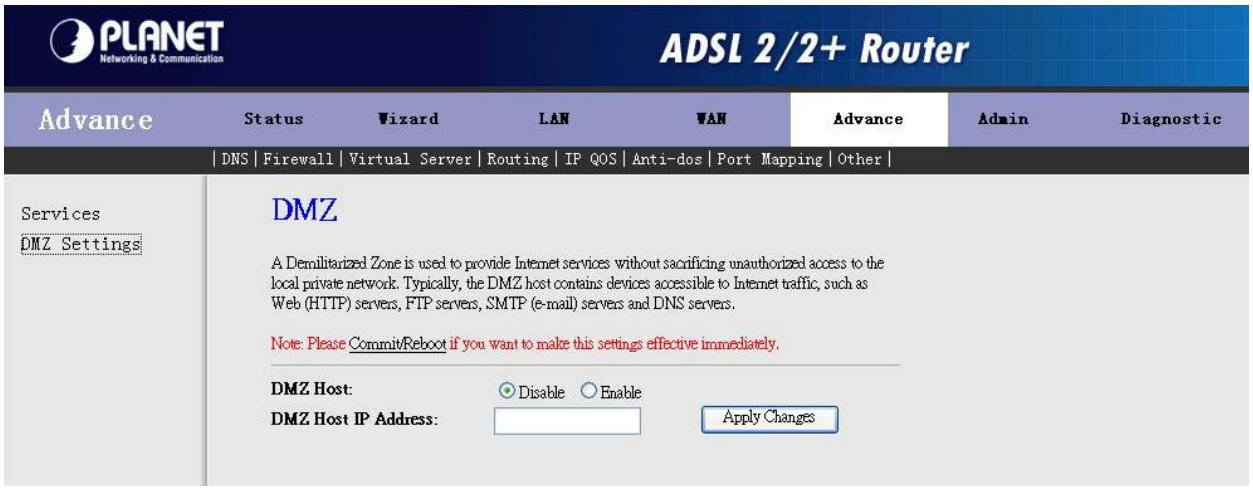
Remote Port start / end: The port numbers used by Internet users when connecting to the Server. These are normally the same as the Internal Port Numbers.

Click **"OK"** button to add this Virtual Server entry.

✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately**

3.5.3.2 DMZ

A **DMZ (Demilitarized Zone)** allows a single computer on your LAN to expose ALL of its ports to the Internet. Enter the IP address of that computer as a DMZ (Demilitarized Zone) host with unrestricted Internet access. When doing this, the DMZ host is no longer behind the firewall.


PLANET
Networking & Communication
ADSL 2/2+ Router
Advance
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| DNS | Firewall | Virtual Server | Routing | IP QOS | Anti-dos | Port Mapping | Other |
Services
DMZ Settings
DMZ
A Demilitarized Zone is used to provide Internet services without sacrificing unauthorized access to the local private network. Typically, the DMZ host contains devices accessible to Internet traffic, such as Web (HTTP) servers, FTP servers, SMTP (e-mail) servers and DNS servers.
Note: Please Commit/Reboot if you want to make this settings effective immediately.
DMZ Host:
Disable
Enable
DMZ Host IP Address:
Apply Changes

Enable DMZ: Click it to enable the DMZ function.
Enter **"DMZ Host IP Address"** and click **"Apply Changes"** to activate the DMZ host.

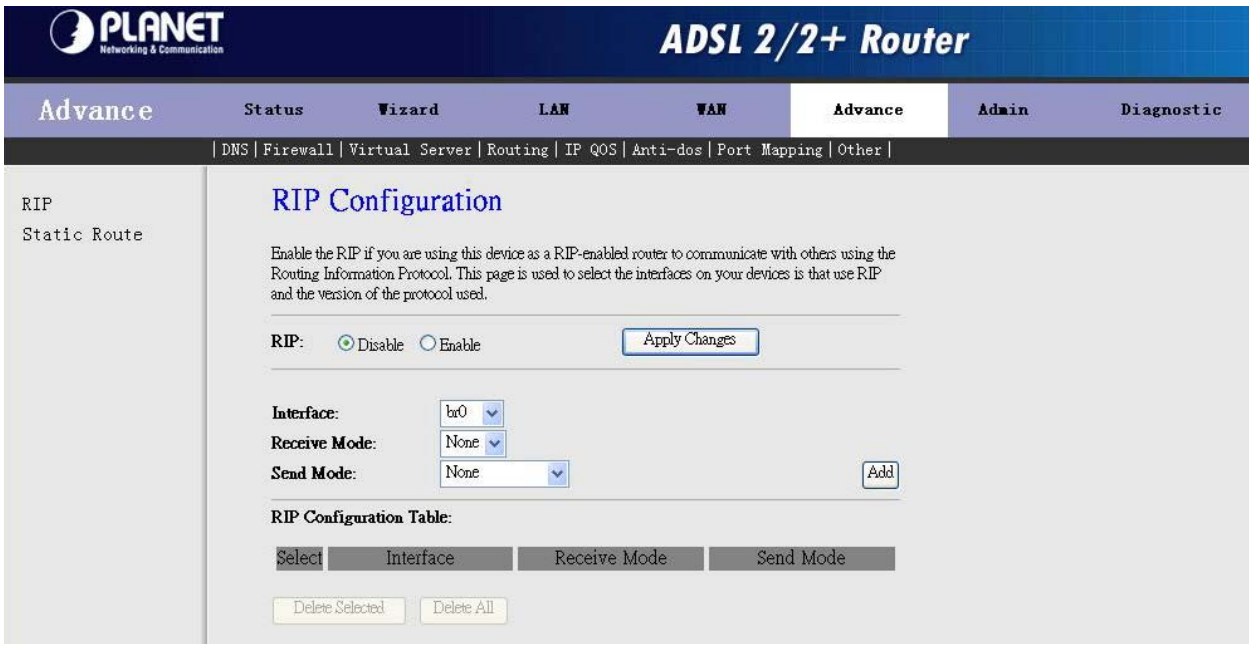
✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately**

3.5.4 Routing

You have two ways to manage the device's routing information. It includes RIP and Static Route.

3.5.4.1 RIP

Enable the RIP if you are using this device as a RIP-enabled router to communicate with others using the Routing Information Protocol. This page is used to select the interfaces on your devices that use RIP, and the version of the protocol used.



To activate RIP for the device, select the **"Enabled"** radio button for RIP Mode and click **"Apply Changes"** to apply it.

To configure an individual interface, select the **Interface, Receive Mode** and **Send mode.** Click the **"Add"** button to save the configuration, and to start or stop RIP based on the Global RIP mode selected.

3.5.4.2 Static Route

This page is used to configure the routing information. Here you can add / delete IP routes.

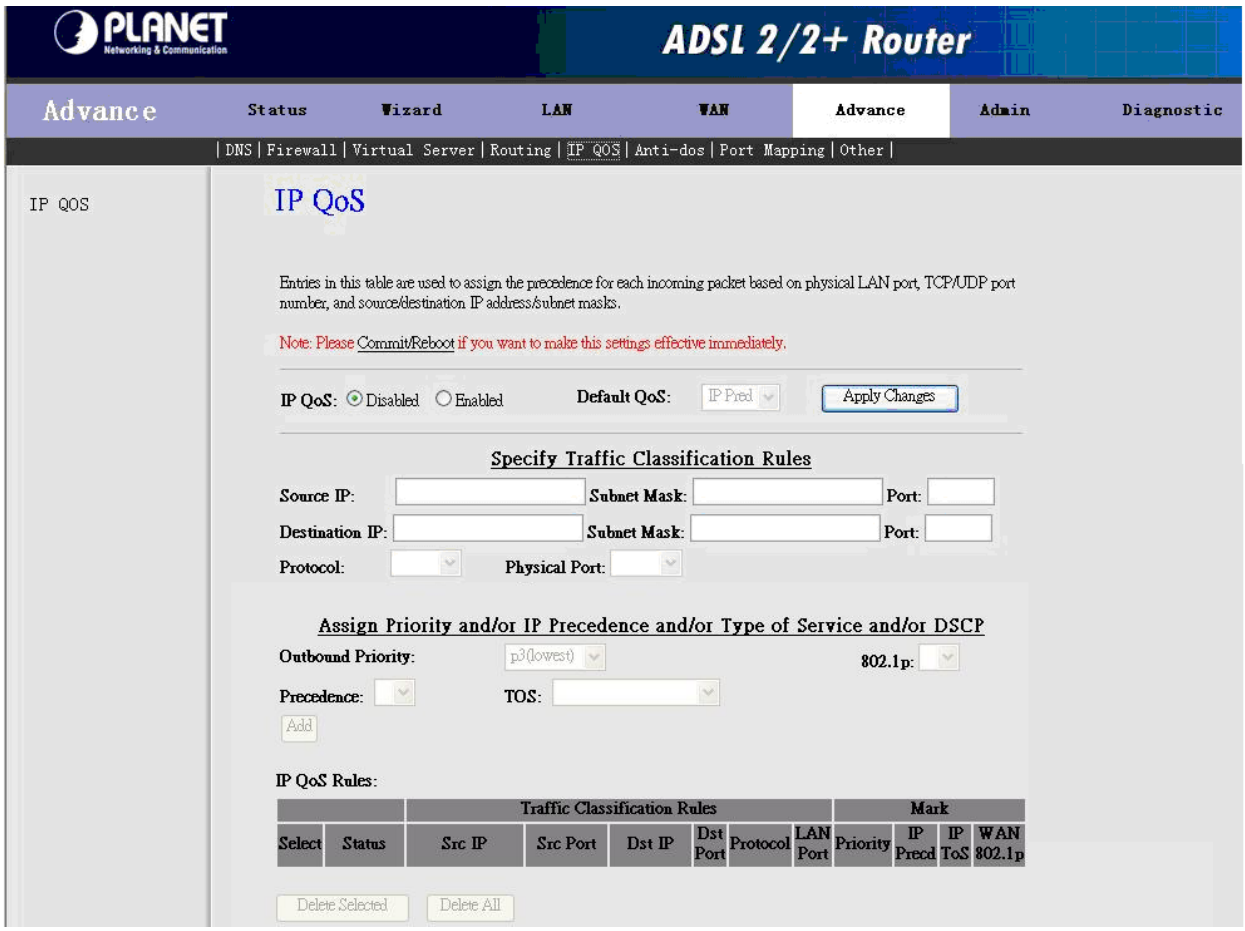
Click **"Enable"** to enable the Static Routing function, you can query the preset static routes, delete an existing static route, or add a new static route. By default, the system has no static route information.

Destination: The IP address where packets will go to.
Subnet Mask: The subnet mask of the destination IP address.
Next Hop: The gateway that the packets will pass by during transmission.
Metric: Metric represents the "cost" of transmission for routing purposes. IP Routing uses hop count as the measurement of cost, with a minimum of 1 for directly connected networks. Enter a number that approximates the cost for this link. The number need not to be precise, but it must between 1 and 15. In practice, 2 or 3 is usually a good number.
Interface: The interface that the packets pass through on the device.

Click **"Add Route"** to add this routing information.

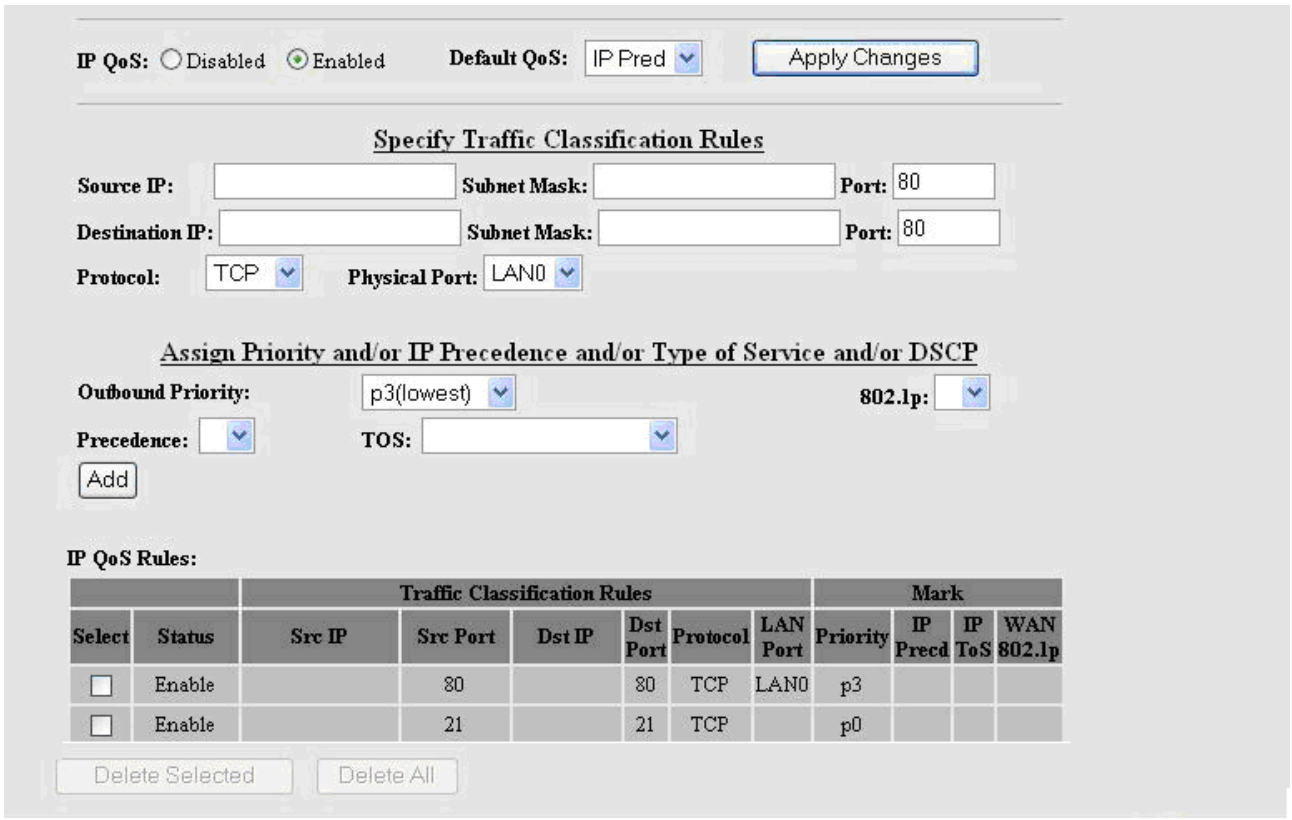
3.5.5 IP QoS

Entries in this table are used to assign the precedence for each incoming packet based on physical LAN port, TCP / UDP port number, and source / destination IP address / subnet masks.



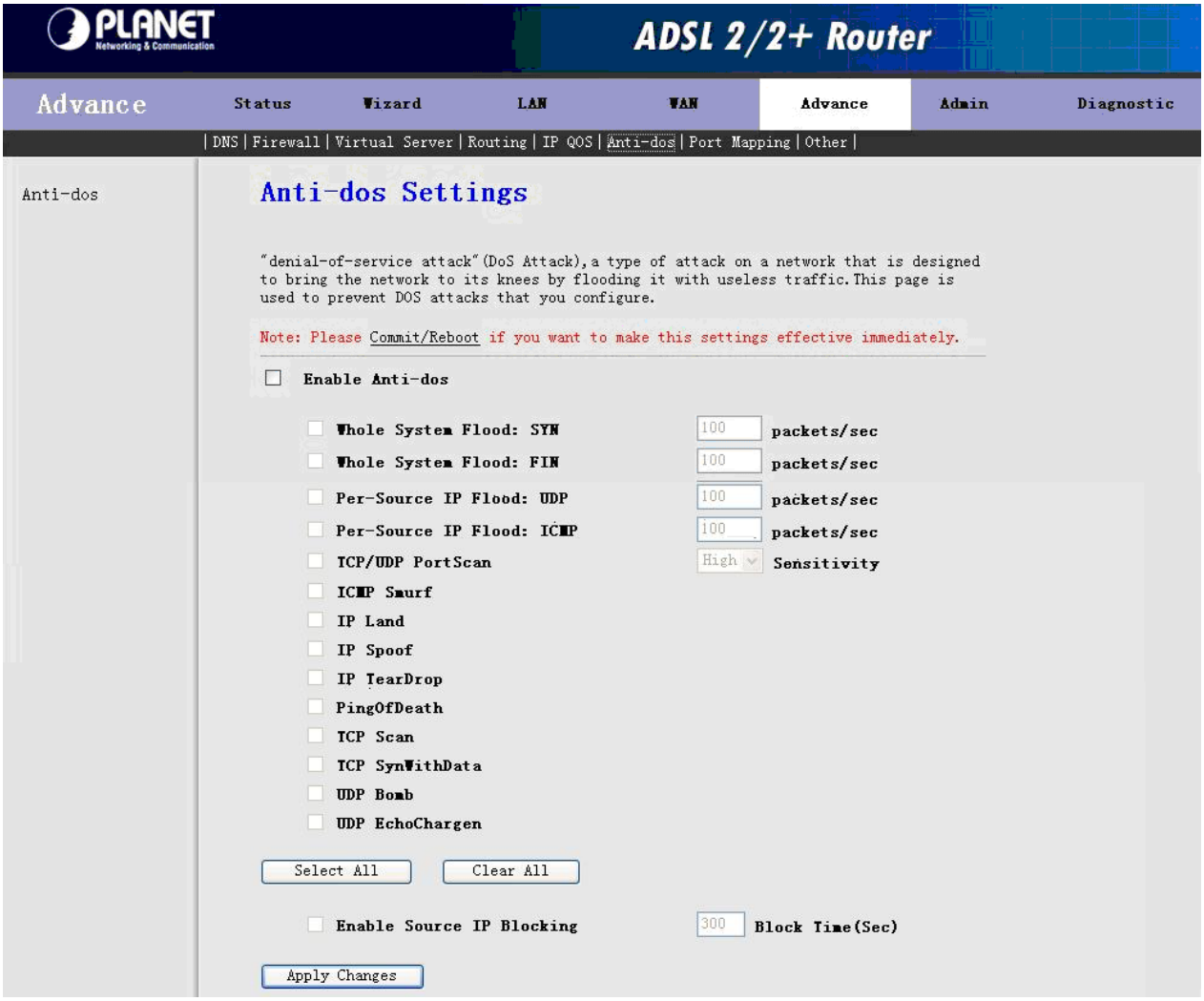
IP QoS: Enable or Disable IP QoS function. Click the **"Apply Changes"** to apply your setting.

When you click **"Add Rule"** button, the IP QoS Setting screen will appear. You can specify the network Outbound Priority on this setting.


IP QoS: Disabled Enabled
Default QoS: IP Pred
Apply Changes
Specify Traffic Classification Rules
Source IP:
Subnet Mask:
Port: 80
Destination IP:
Subnet Mask:
Port: 80
Protocol: TCP
Physical Port: LAN0
Assign Priority and/or IP Precedence and/or Type of Service and/or DSCP
Outbound Priority: p3(lowest)
802.1p:
Precedence:
TOS:
Add
IP QoS Rules:
Traffic Classification Rules
Mark
Select
Status
Src IP
Src Port
Dst IP
Dst Port
Protocol
LAN Port
Priority
IP Precd
IP ToS
WAN 802.1p
Enable 80 80 TCP LAN0 p3
Enable 21 21 TCP p0
Delete Selected
Delete All

3.5.6 Anti-DoS

"Denial-of-Service Attack" (DoS Attack), a type of attack on a network that is designed to bring the network to its knees by flooding it with useless traffic. This page is used to prevent DOS attacks that you configure.

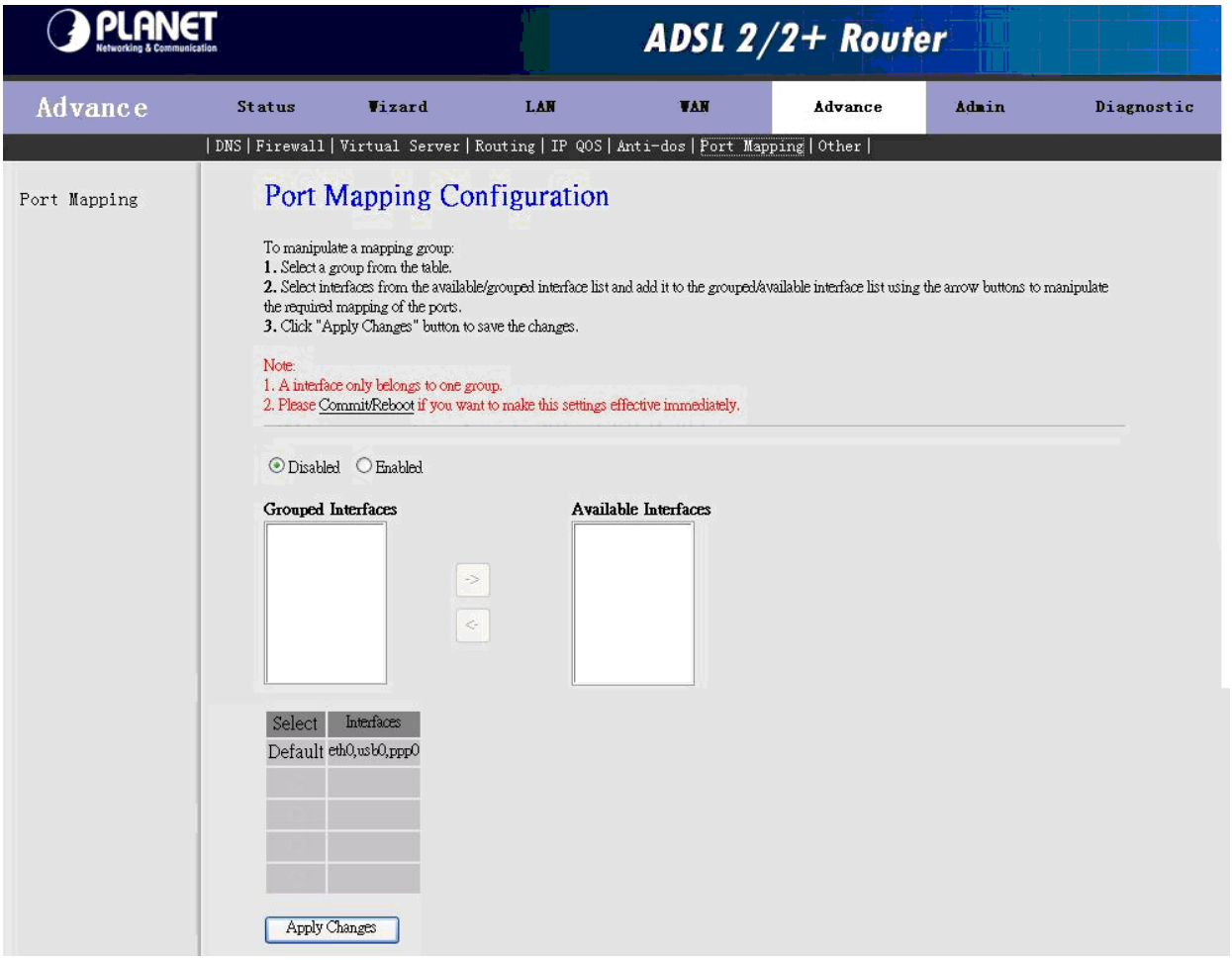

PLANET
Networking & Communication
ADSL 2/2+ Router
Advance
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
DNS | Firewall | Virtual Server | Routing | IP QOS | Anti-dos | Port Mapping | Other
Anti-dos
Anti-dos Settings
"denial-of-service attack"(DoS Attack),a type of attack on a network that is designed to bring the network to its knees by flooding it with useless traffic. This page is used to prevent DOS attacks that you configure.
Note: Please Commit/Reboot if you want to make this settings effective immediately.
Enable Anti-dos
Whole System Flood: SYN 100 packets/sec
Whole System Flood: FIN 100 packets/sec
Per-Source IP Flood: UDP 100 packets/sec
Per-Source IP Flood: ICMP 100 packets/sec
TCP/UDP PortScan High Sensitivity
ICMP Smurf
IP Land
IP Spoof
IP TearDrop
PingOfDeath
TCP Scan
TCP SynWithData
UDP Bomb
UDP EchoChargen
Select All
Clear All
Enable Source IP Blocking 300 Block Time(Sec)
Apply Changes

Select **“Enable”** can automatically detect and block Denial of Service (DoS) attacks, such as Ping of Death, SYN Flood, Port Scan and Land Attack. Select the attack types that you want to block and click **“Apply Changes”** to apply your settings.

✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately**

3.5.7 Port Mapping

Port Mapping supports multiple ports to PVC and bridging groups. Each group will perform as an independent network. To support this feature, you must create mapping groups with appropriate LAN and WAN interfaces using the "**->**" button. The "**<-** "button will remove the grouping and add the ungrouped interfaces to the Default group.



To manipulate a mapping group:

1. Select a group from the table.
2. Select interfaces from the WAN and LAN interface list and add them to the grouped interface list using the arrow buttons to manipulate the required mapping of the ports.
3. Click **"Apply Changes"** button to save the changes.

✍Note

1. An interface only belongs to one group.

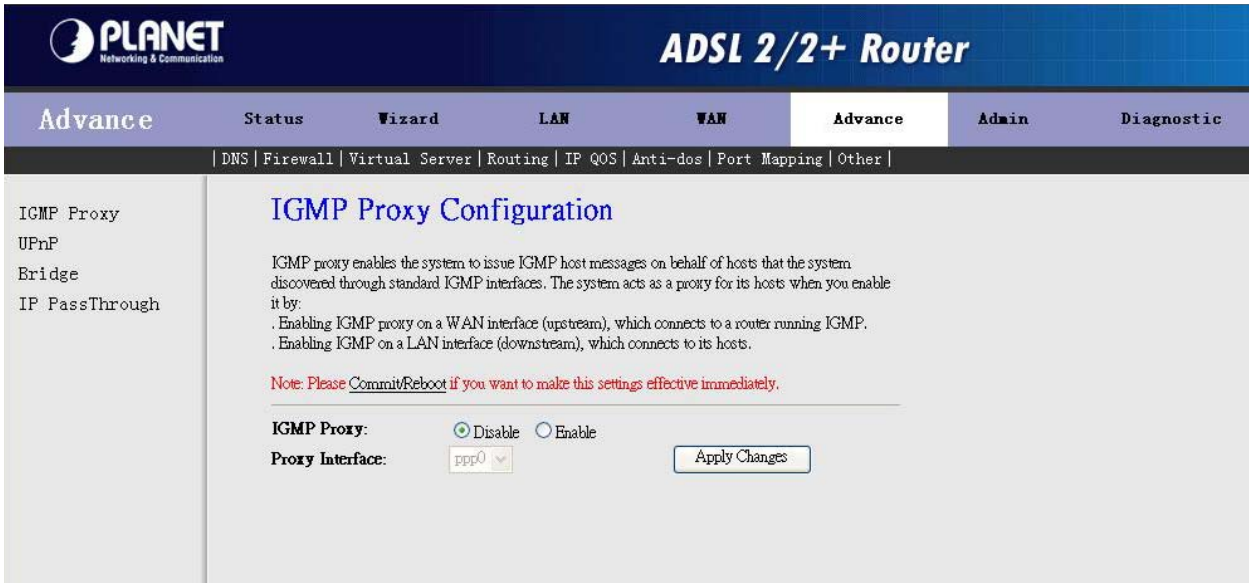
2. Please Commit/Reboot if you want to make this settings effective immediately.

3.5.8 Other

This function includes as following parts – IGMP Proxy, UPnP and Bridge.

3.5.8.1 IGMP Proxy

IGMP Proxy enables the system to issue IGMP host messages on behalf of hosts that the system discovered through standard IGMP interfaces.


PLANET
Networking & Communication
ADSL 2/2+ Router
Advance
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| DNS | Firewall | Virtual Server | Routing | IP QOS | Anti-dos | Port Mapping | Other |
IGMP Proxy
UPnP
Bridge
IP PassThrough
IGMP Proxy Configuration
IGMP proxy enables the system to issue IGMP host messages on behalf of hosts that the system discovered through standard IGMP interfaces. The system acts as a proxy for its hosts when you enable it by:
. Enabling IGMP proxy on a WAN interface (upstream), which connects to a router running IGMP.
. Enabling IGMP on a LAN interface (downstream), which connects to its hosts.
Note: Please Commit/Reboot if you want to make this settings effective immediately.
IGMP Proxy:
Disable
Enable
Proxy Interface:
ppp0
Apply Changes

The system acts as a proxy for its hosts when you enable it by doing the follows:

- Enable IGMP proxy on WAN interface (upstream), which connects to a router running IGMP.
- Enable IGMP on LAN interface (downstream), which connects to its hosts.

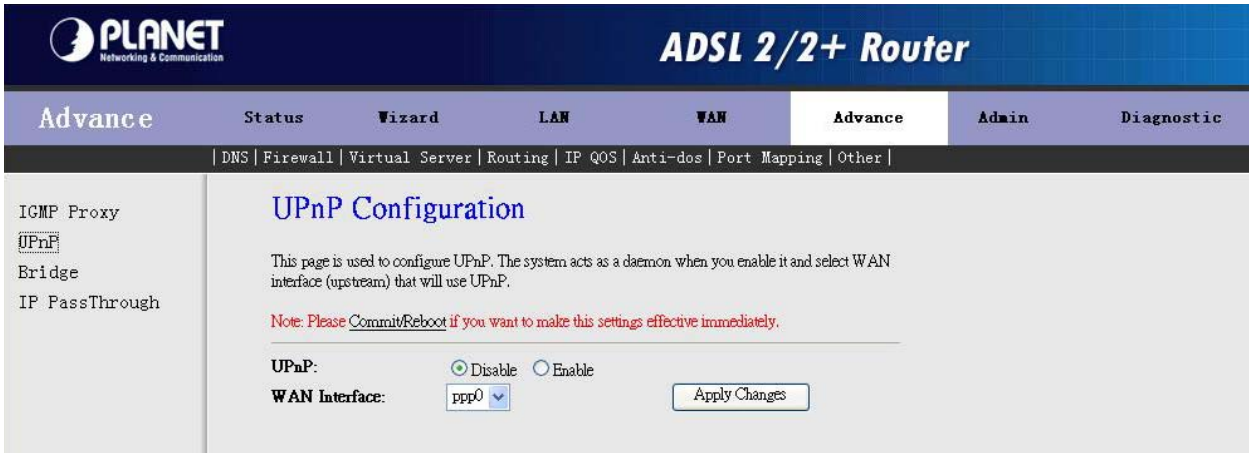
✍Note **Please Commit/Reboot if you want to make this settings effective immediately.**

3.5.8.2 UPnP

UPnP (Universal Plug and Play) is a distributed, open networking standard that uses TCP/IP for simple peer-to-peer network connectivity between devices. An UPnP device can dynamically join a network, obtain an IP address, convey its capabilities and learn about other devices on the network. In turn, a device can leave a network smoothly an automatically when it is no longer in use. UPnP broadcasts are only allowed on the LAN.

How do I know if I'm using UPnP?

UPnP hardware is identified as an icon in the Network Connections folder (in Windows XP & Windows ME). Each UPnP-compatible device that is installed on your network will appear as a separate icon.



Click **"Enable"** to enable UPnP function and select the WAN Interface. Click **"Apply Changes"** to apply your setting.

✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately**

3.5.8.3 Bridge

This page is used to configure the bridge parameters. Here you can change the settings or view some information on the bridge and its attached ports.

Aging Time: Enter the time for the bridge.

802.1d Spanning Tree: You can Enable or Disable the 802.1d Spanning Tree Protocol.

Click **"Apply Changes"** to apply your setting.

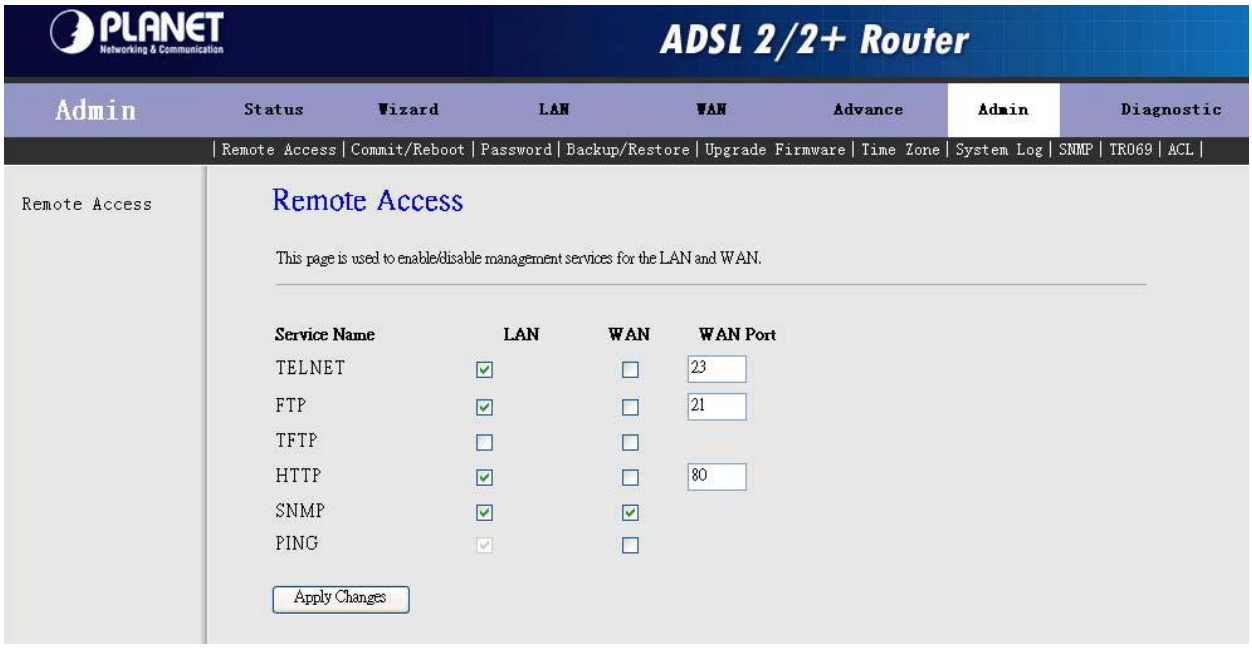
✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately.**

3.6 Admin

You can configure admin management in this part. It includes **Remote Access**, **Commit / Reboot**, **Password**, **Backup / Restore**, **Update Firmware**, **Time Zone**, **System Log**, **SNMP**, **TR-069**, and **ACL**.

3.6.1 Remote Access

User can enable or disable remote management services for the LAN and WAN.

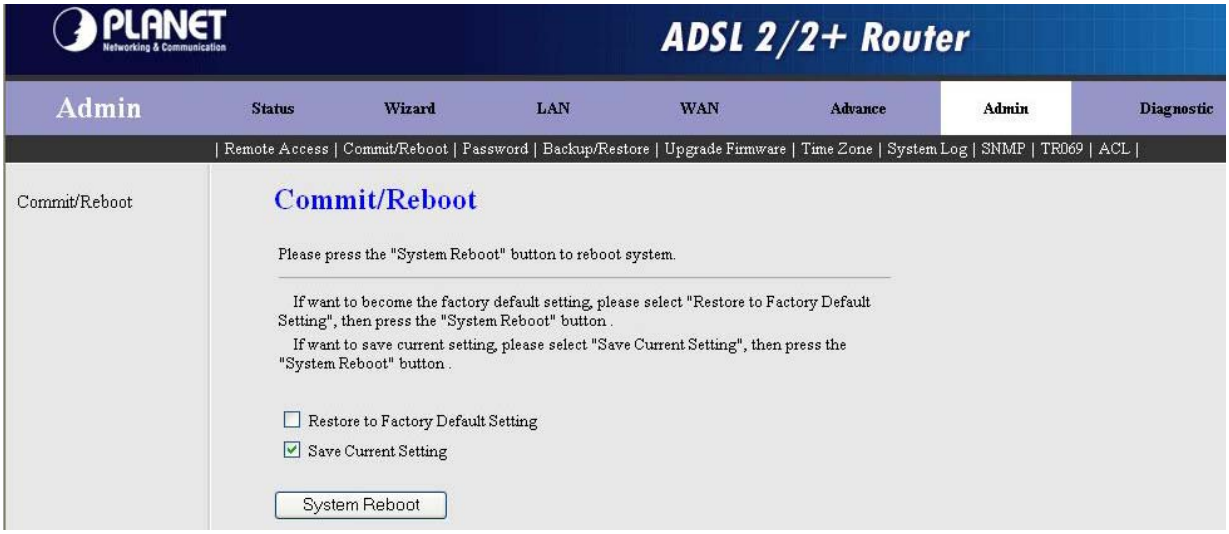


Select the service items which you want to remote management. Click **"Apply Changes"** to apply your setting.

3.6.2 Commit / Reboot

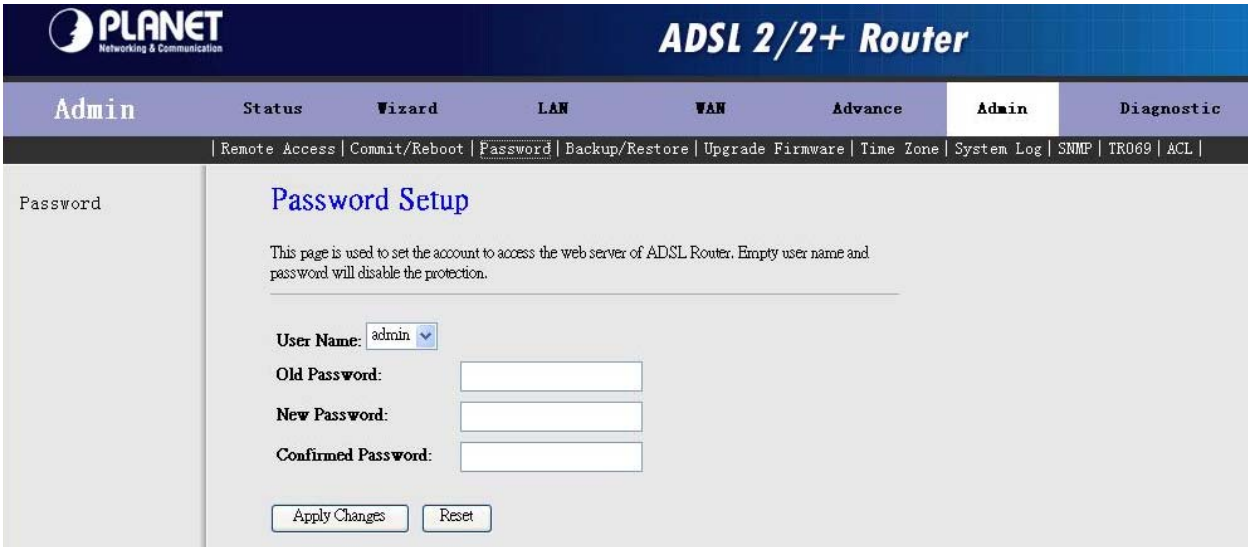
The **Commit / Reboot** screen allows you to restart your router with its current settings or the factory default settings.

- If you want reset the current settings to factory default, please choose **"Reset to Factory Default Settings"**, and then press **"System Reboot"** button to reboot system.
- If you want commit current settings, please choose **"Save Current Settings"**, and then press **"System Reboot"** button to reboot system.


PLANET
Networking & Communication
ADSL 2/2+ Router
Admin
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| Remote Access | Commit/Reboot | Password | Backup/Restore | Upgrade Firmware | Time Zone | System Log | SNMP | TR069 | ACL |
Commit/Reboot
Commit/Reboot
Please press the "System Reboot" button to reboot system.
If want to become the factory default setting, please select "Restore to Factory Default Setting", then press the "System Reboot" button .
If want to save current setting, please select "Save Current Setting", then press the "System Reboot" button .
Restore to Factory Default Setting
Save Current Setting
System Reboot

3.6.3 Password

This page is used to set the account to access the web server of ADSL Router. The new password will be availability after system reboot.



User Name: There are two level user accounts for your selection. The admin account has full rights for device management, and the user account only can see the status information of this device.

Old Password: Enter the old password.

New Password: Enter your new password.

Confirmed Password: Enter your new password again.

Click **"Apply Changes"** to apply your setting.

3.6.4 Backup / Restore

This page allows you to backup current settings to a file or restores the settings from the file which was saved previously.

PLANET Networking & Communication
ADSL 2/2+ Router
Admin
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| Remote Access | Commit/Reboot | Password | Backup/Restore | Upgrade Firmware | Time Zone | System Log | SNMP | TR069 | ACL |
ackup/Restore
Backup/Restore Settings
This page allows you to backup current settings to a file or restore the settings from the file which was saved previously. Besides, you could reset the current configuration to factory default.
Save Settings to File:
Save...
Load Settings from File:
Browse...
Upload

Backup: Click the **"Save…"** button to backup the configuration of router.

Restore: Click the **"Browse..."** button, select the correct update configure settings file. Then click the **"Upload"** to update the configurations.

3.6.5 Upgrade Firmware

You can upgrade the **firmware** of the router in this page. Make sure the firmware you want to use is on the local hard drive of the computer.

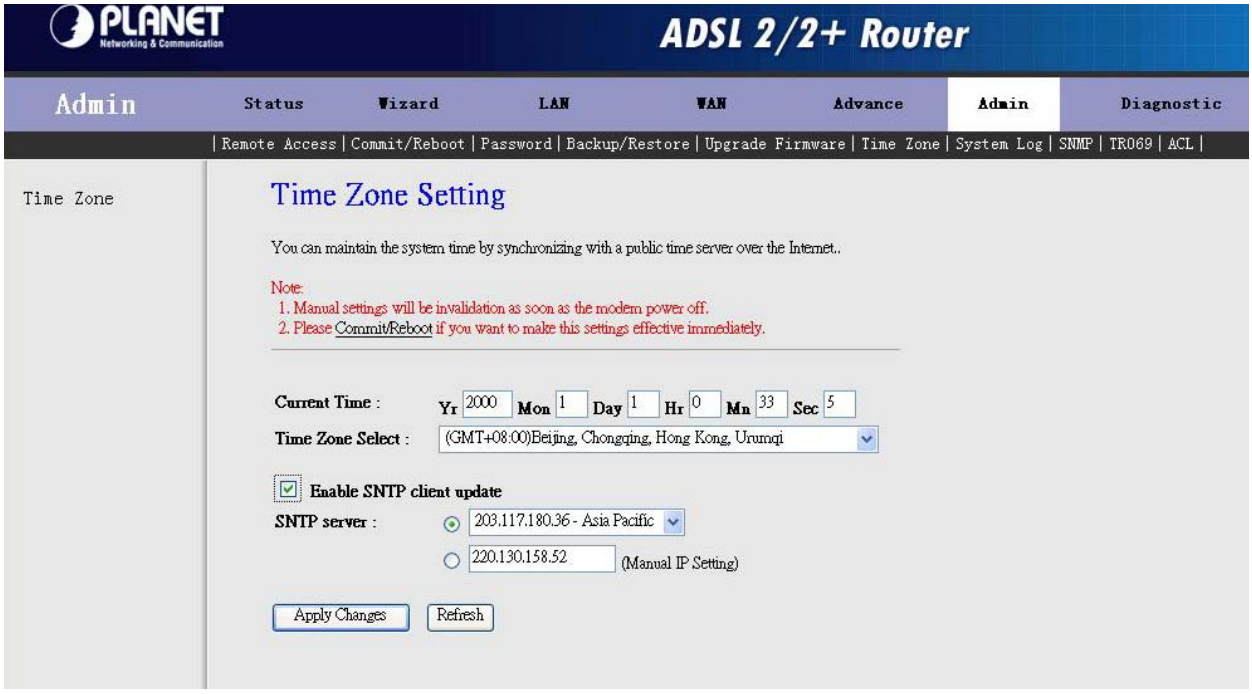
PLANET Networking & Communication
ADSL 2/2+ Router
Admin
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| Remote Access | Commit/Reboot | Password | Backup/Restore | Upgrade Firmware | Time Zone | System Log | SNMP | TR069 | ACL |
Upgrade Firmware
Upgrade Firmware
This page allows you upgrade the ADSL Router firmware to new version. Please note, do not power off the device during the upload because it may crash the system.
Select File:
Browse...
Upload
Reset

Click on **"Browse..."** button to browse the local had drive and locate the firmware to be used for the update. Then press **"Upload"** to upload new Firmware.

✍Note **It might take several minutes, don't power off it during upgrading. Device will restart after the upgrade!!**

3.6.6 Time Zone

The system time is the time used by the device for scheduling services. You can manually set the time or connect to a NTP (Network Time Protocol) server. If an NTP server is set, you will only need to set the time zone.


PLANET
Networking & Communication
ADSL 2/2+ Router
Admin
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| Remote Access | Commit/Reboot | Password | Backup/Restore | Upgrade Firmware | Time Zone | System Log | SNMP | TR069 | ACL |
Time Zone
Time Zone Setting
You can maintain the system time by synchronizing with a public time server over the Internet..
Note:
1. Manual settings will be invalidation as soon as the modem power off.
2. Please Commit/Reboot if you want to make this settings effective immediately.
Current Time :
Yr 2000 Mon 1 Day 1 Hr 0 Mn 33 Sec 5
Time Zone Select :
(GMT+08:00)Beijing, Chongqing, Hong Kong, Urumqi
Enable SNTP client update
SNTP server :
203.117.180.36 - Asia Pacific
220.130.158.52
(Manual IP Setting)
Apply Changes
Refresh

Current Time: It shows the current time.

Time Zone: Choose the Time Zone of your location. This will set the time difference between your time zone and Greenwich Mean Time (GMT).

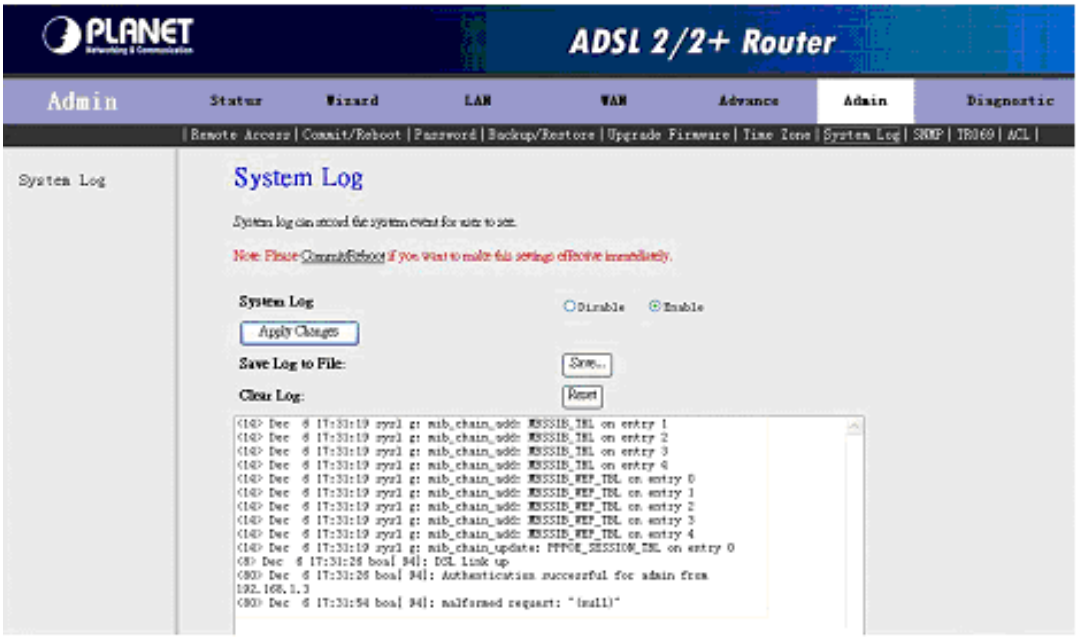
SNTP Server: Select the NTP Server from the slide down menu or enter the NTP IP address manually.

Click **"Apply Changes"** to apply your setting.

✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately**

3.6.7 System Log

Click **“System Log”** to show the log information of device. The system log dialog allows you to view the system log and click the **“Refresh”** button to fresh the system event logs.

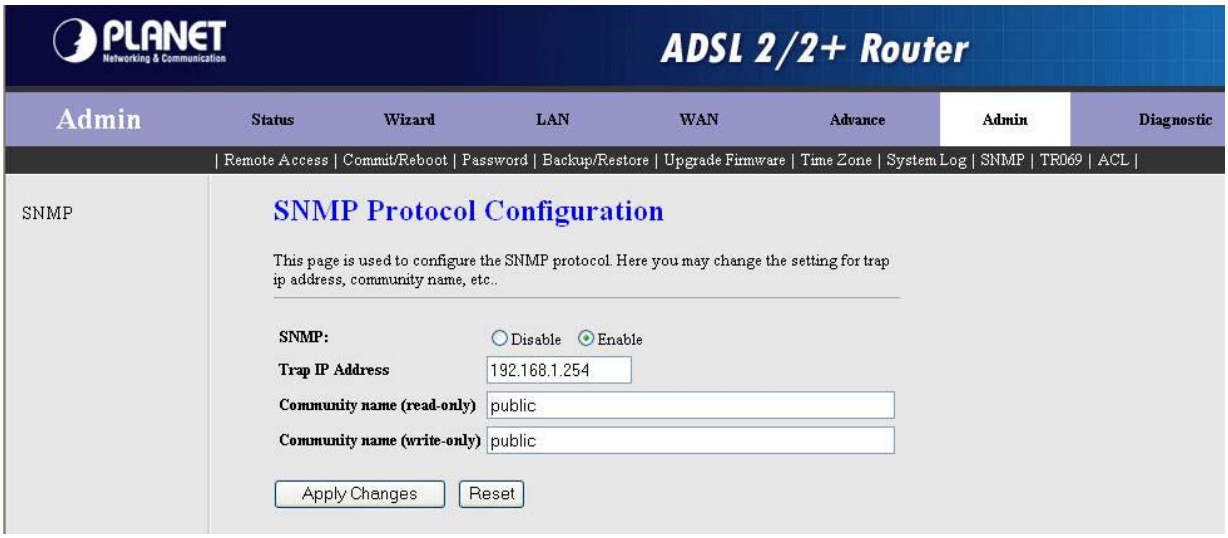


System Log: You can Enable or Disable the System Log Function. Click **“Apply Changes”** to apply your setting.

✍**Note** **Please Commit/Reboot if you want to make this settings effective immediately**

3.6.8 SNMP

This page is used to configure the SNMP protocol. You can set SNMP related information here.



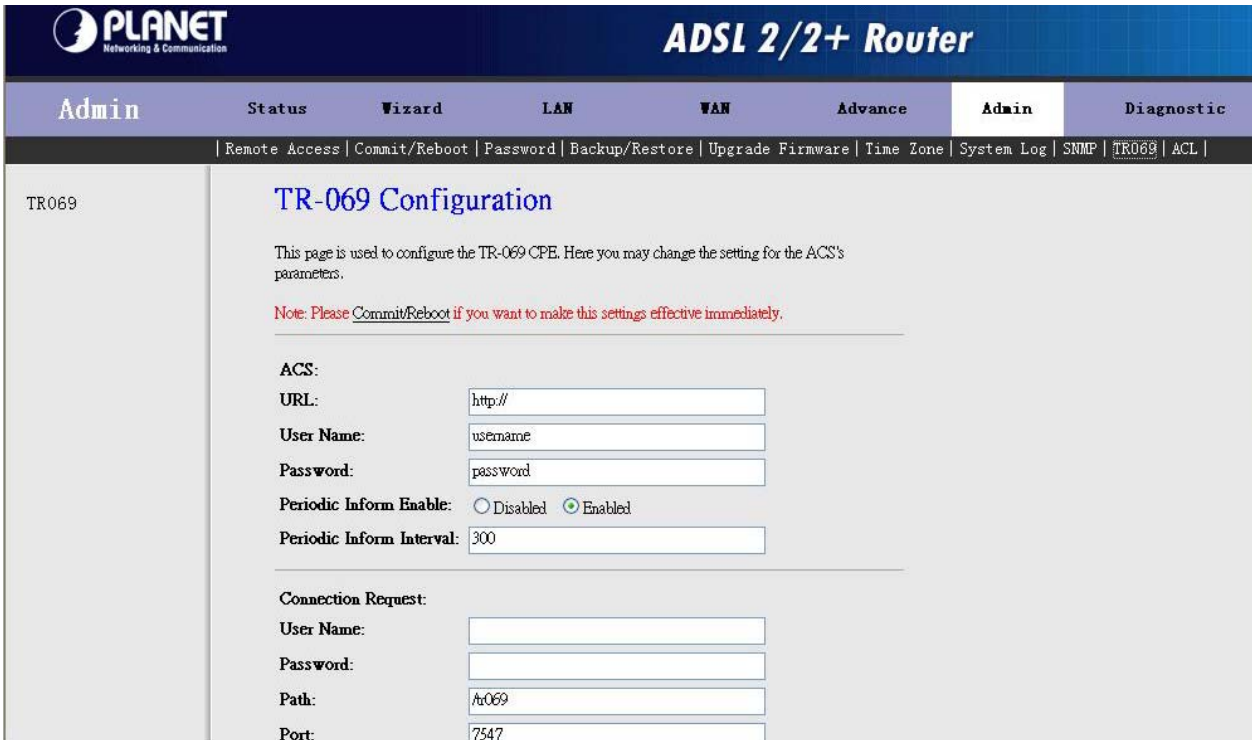
Read Community: Select to set the password for incoming Get- and GetNext request from management station.

Write Community: Select to set the password for incoming Set request from management station.

The default password is **"public"**. When you are done making changes, click **"Apply Changes"** to apply your setting.

3.6.9 TR-069

This page is used to configure the TR-069 CPE. Here you may change the setting for the ACS's parameters.



3.6.10 ACL

Access Control List Configuration

If enabled, permits access to local management services from IP addresses contained in the Access Control List.

PLANET Networking & Communication
ADSL 2/2+ Router
Admin
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| Remote Access | Commit/Reboot | Password | Backup/Restore | Upgrade Firmware | Time Zone | System Log | SNMP | TR069 | ACL |
ACL
ACL Configuration
This page is used to configure the IP Address for Access Control List. If ACL is enabled, just these IP address that in the ACL Table can access CPE. Here you can add/delete IP Address.
ACL Capability: Disable Enable Apply Changes
Enable:
Interface: LAN
IP Address:
Subnet Mask:
Add
ACL Table:
Select state Interface IP Address
Delete Selected Delete All

If enable ACL, and then only the effective IP in ACL can access the router.

Step1 If you want to enable ACL, please choose "Enable" and then press "**Apply Changes**" to apply your setting.

Step2 Click the Enable checkbox.

Step3 Enter the host IP address that you want to permit and click “**Add**”.

Step4 Press "take effect" to enable the configuration.

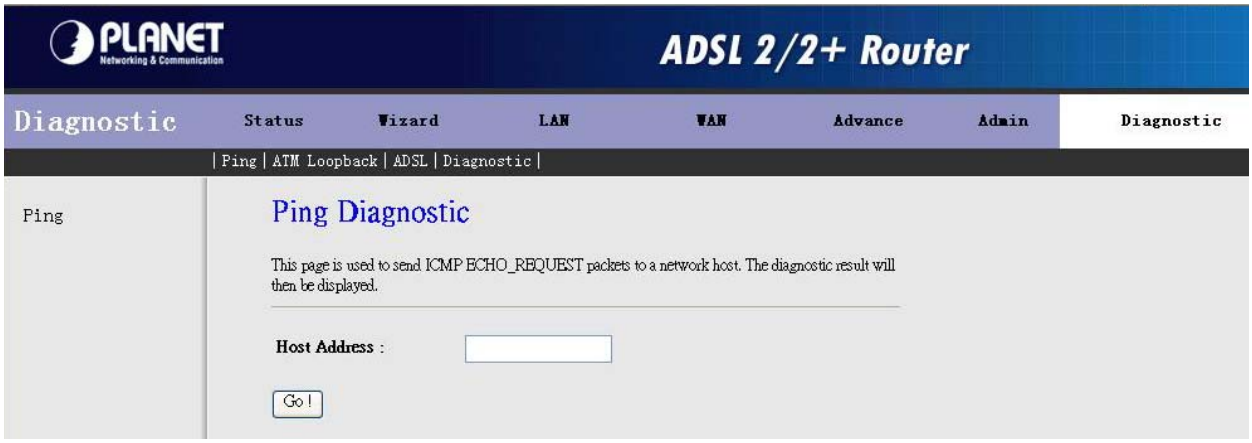
✍**Note** **If you choose "Enable" in ACL Capability, please make sure that your host IP is in ACL before it takes effect. Or you will not manage the device from your PC.**

3.7 Diagnostic

Your router is capable of testing your network and DSL connection. The individual tests are listed as Ping, ATM Loopback, ADSL and Diagnostic.

3.7.1 Ping

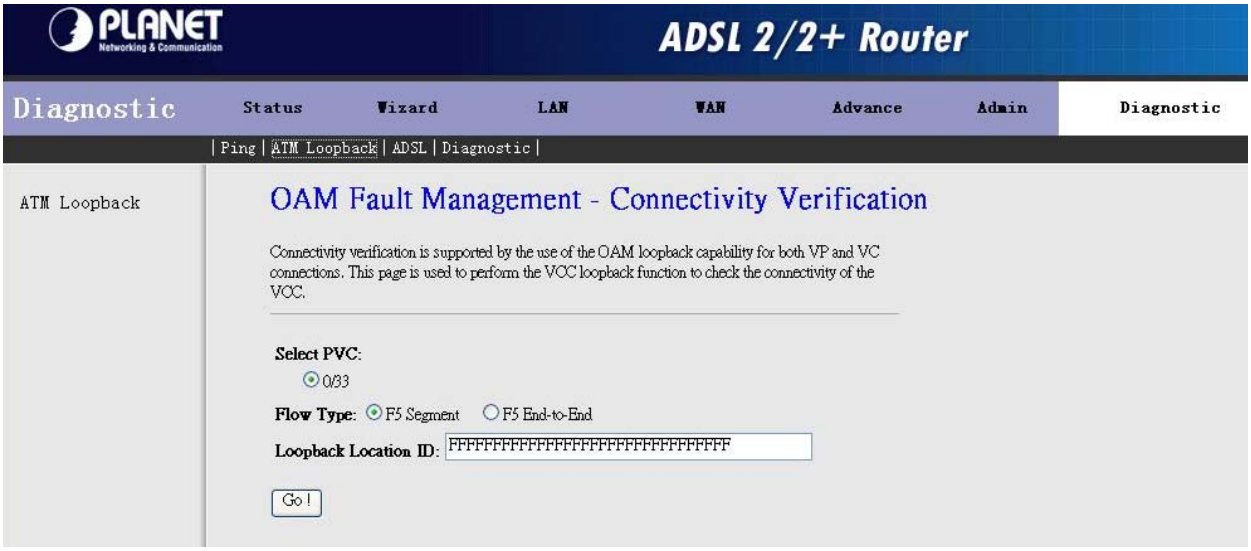
This page is used to send ICMP ECHO_REQUEST packets to network host. The diagnostic result will then be displayed.



Host Address: Enter the IP address that you wish to test. And then click “**Go!**” button for testing.

3.7.2 ATM Loopback

Connectivity verification is supported by the use of the OAM loopback capability for both VP and VC connections. This page is used to perform the VCC loopback function to check the connectivity of the VCC.

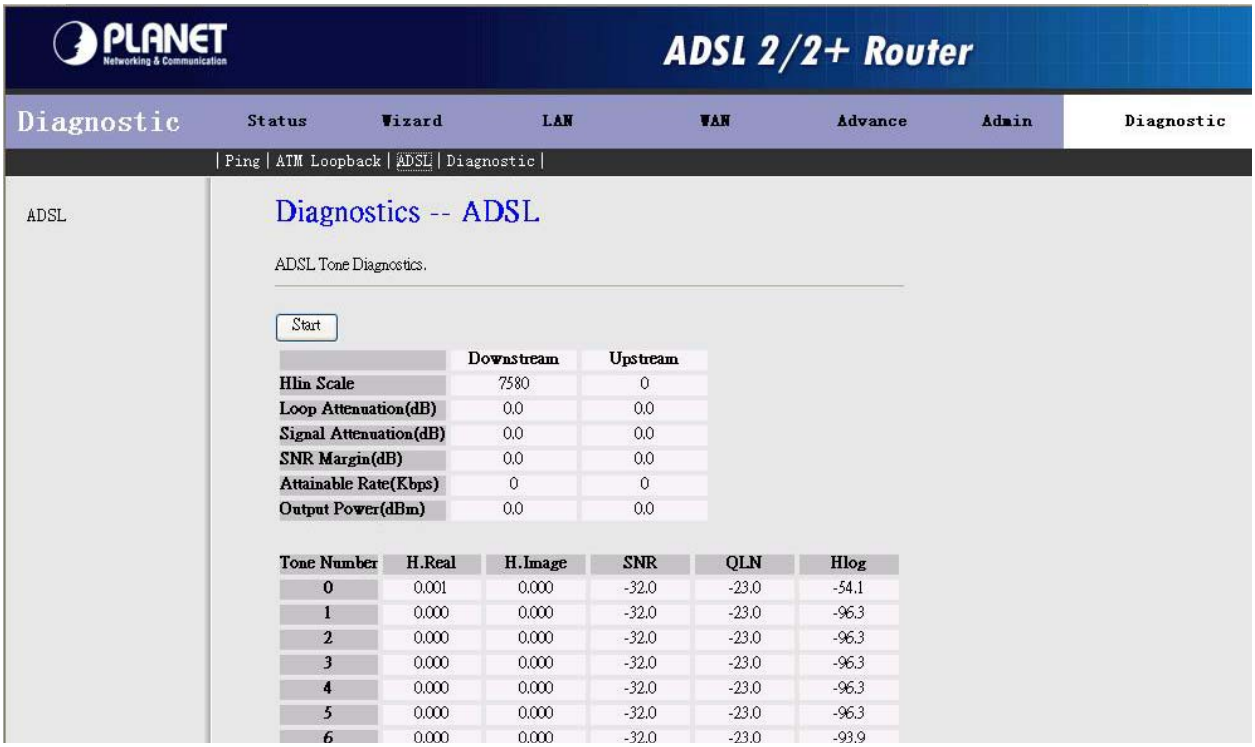

PLANET
Networking & Communication
ADSL 2/2+ Router
Diagnostic
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| Ping | ATM Loopback | ADSL | Diagnostic |
ATM Loopback
OAM Fault Management - Connectivity Verification
Connectivity verification is supported by the use of the OAM loopback capability for both VP and VC connections. This page is used to perform the VCC loopback function to check the connectivity of the VCC.
Select PVC:
0/33
Flow Type: F5 Segment F5 End-to-End
Loopback Location ID: FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
Go !

Select your **PVC** and **Flow Type** that you want to test. Enter the Loopback Location IP and then click **"Go"** for testing.

3.7.3 ADSL

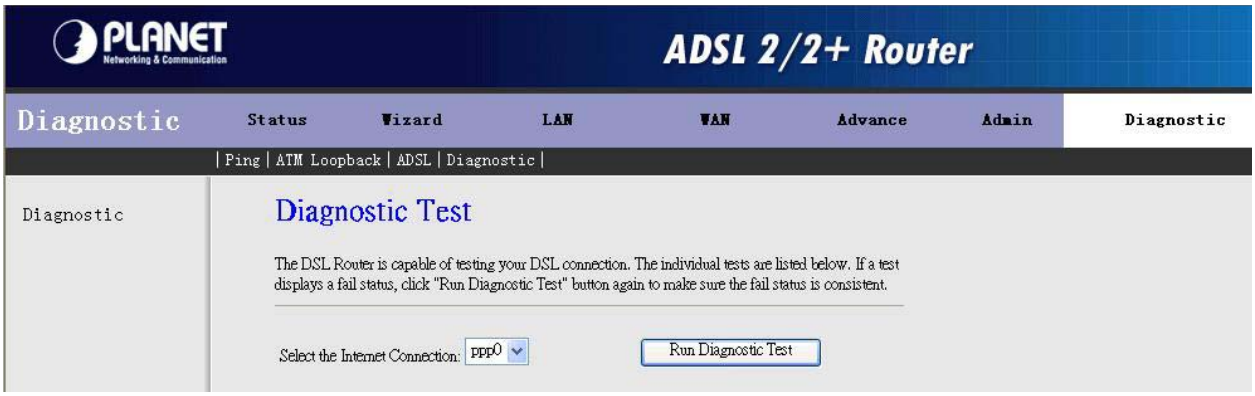
In this page, you can test the ADSL line tone status. Click "Go" to start testing. The test result will come out about 3 minutes later and the page will refresh itself automatically.

✍**Note** **This test is for ADSL 2 / 2+ Line only.**



3.7.4 Diagnostic

The DSL Router is capable of testing your DSL connection. The individual tests are listed below. If a test displays a fail status, click **"Run Diagnostic Test"** button again to make sure the fail status is consistent.


PLANET
Networking & Communication
ADSL 2/2+ Router
Diagnostic
Status
Wizard
LAN
WAN
Advance
Admin
Diagnostic
| Ping | ATM Loopback | ADSL | Diagnostic |
Diagnostic
Diagnostic Test
The DSL Router is capable of testing your DSL connection. The individual tests are listed below. If a test displays a fail status, click "Run Diagnostic Test" button again to make sure the fail status is consistent.
Select the Internet Connection: ppp0
Run Diagnostic Test

Appendix A: Glossary

Address mask
A bit mask select bits from an Internet address for subnet addressing. The mask is 32 bits long and selects the network portion of the Internet address
and one or more bits of the local portion. Sometimes it called subnet mask.

AAL5
ATM Adaptation Layer - This layer maps higher layer user data into ATM cells, making the data suitable for transport through the ATM network.

ADSL
Asymmetric digital subscriber line

ATM
Asynchronous Transfer Mode - A cell-based data transfer technique in which channel demand determines packet allocation. ATM offers fast packet technology,
real time, and demand led switching for efficient use of network resources.

AWG
American Wire Gauge - The measurement of thickness of a wire

Bridge
A device connects two or more physical networks and forward packets between them. Bridges can usually be made to filter packets, that is, to forward only certain traffic. Related devices are repeaters which simply forward electrical signals from one cable to the other and full-fledged routers which make routing decisions based on several criteria.

Broadband
Characteristic of any network multiplexes independent network carriers onto a single cable. Broadband technology allows several networks to coexist on one single cable; traffic from one network does not interfere with traffic from another. Broadcast a packet delivery system where a copy of a given packet is given to all hosts attached to the network. Example: Ethernet.

CO
Central Office. Refers to equipment located at a Telco or service provider's office.

CPE
Customer Premises Equipment located in a user's premises

DHCP (Dynamic Host Configuration Protocol)
DHCP is software that automatically assigns IP addresses to client stations logging onto a TCP/IP network. DHCP eliminates having to manually assign permanent IP addresses to every device on your network. DHCP software typically runs in servers and is also found in network devices such as Routers.

DMT
Discrete Multi-Tone frequency signal modulation

Downstream rate
The line rate for return messages or data transfers from the network machine to the user's premises machine.

DSLAM
Digital Subscriber Line Access Multiplex

Dynamic IP Addresses
A dynamic IP address is an IP address that is automatically assigned to a client station (computer, printer, etc.) in a TCP/IP network. Dynamic IP addresses are typically assigned by a DHCP server, which can be a computer on the network or another piece of hardware, such as the Router. A dynamic IP address
may change every time your computer connects to the network.

Encapsulation
The technique layer protocols in which a layer adds header information to the protocol data unit (PDU) from the layer above. As an example, in Internet terminology, a packet would contain a header from the physical layer, followed by a header from the network layer (IP), followed by a header from the transport
layer (TCP), and followed by the application protocol data.

Ethernet
One of the most common local area network (LAN) wiring schemes, Ethernet has a transmission rate of 10 Mbps.

FTP
File Transfer Protocol. The Internet protocol (and program) transfer files between hosts.

Hop count
A measure of distance between two points on the Internet. It is equivalent to the number of gateways that separate the source and destination.

HTML
Hypertext Markup Language - The page-coding language for the World Wide Web.

HTML browser
A browser used to traverse the Internet, such as Netscape or Microsoft Internet Explorer.

http
Hypertext Transfer Protocol - The protocol carry world-wide-web (www) traffic between a www browser computer and the www server being accessed.

ICMP
Internet Control Message Protocol - The protocol handle errors and control messages at the IP layer. ICMP is actually part of the IP protocol.

Internet address
An IP address is assigned in blocks of numbers to user organizations accessing the Internet. These addresses are established by the United States Department of Defense's Network Information Center. Duplicate addresses can cause major problems on the network, but the NIC trusts organizations to use individual addresses responsibly. Each address is a 32-bit address in the form of x.x.x.x where x is an eight- bit number from 0 to 255. There are three classes: A, B and C, depending on how many computers on the site are likely to be connected.

Internet Protocol (IP)
The network layer protocol for the Internet protocol suite

IP address
The 32-bit address assigned to hosts that want to participate in a TCP/IP Internet.

ISP
Internet service provider - A company allows home and corporate users to connect to the Internet.

MAC
Media Access Control Layer - A sub-layer of the Data Link Layer (Layer 2) of the ISO OSI Model responsible for media control.

MIB
Management Information Base - A collection of objects can be accessed via a network management protocol, such as SNMP and CMIP (Common Management Information Protocol).

NAT
Network Address Translation - A proposal for IP address reuse, where the local IP address is mapped to a globally unique address.

NVT
Network Virtual Terminal

PAP
Password Authentication Protocol

PORT
The abstraction used in Internet transport protocols to distinguish among multiple simultaneous connections to a single destination host.

POTS
Plain Old Telephone Service - This is the term describe basic telephone service.

PPP
Point-to-Point-Protocol - The successor to SLIP, PPP provides router-to-router and host-to-network connections over both synchronous and asynchronous circuits.

PPPoE
PPP over Ethernet is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.

Remote server
A network computer allows a user to log on to the network from a distant location.

RFC
Request for Comments - Refers to documents published by the Internet Engineering Task Force (IETF) proposing standard protocols and procedures for the Internet. RFC can be found at www.ietf.org.

Route
The path that network traffic takes from its source to its destination. The route a datagram may follow can include many gateways and many physical networks.
In the Internet, each datagram is routed separately.

Router
A system is responsible for making decisions about which of several paths network (or Internet) traffic will follow. To do this, it uses a routing protocol to gain information about the network and algorithms to choose the best route based on several criteria known as "routing metrics".

Routing Table
Information stored within a router that contains network path and status information. It is used to select the most appropriate route to forward information along.

Routing Information Protocol
Routers periodically exchange information with one another so that they can determine minimum distance paths between sources and destinations.

SNMP
Simple Network Management Protocol - The network management protocol of choice for TCP/IP-based Internet.

SOCKET
(1) The Berkeley UNIX mechanism for creating a virtual connection between processes.
(2) IBM term for software interfaces that allow two UNIX application programs to talk via TCP/IP protocols.

Spanning-Tree Bridge Protocol (STP)
Spanning-Tree Bridge Protocol (STP) - Part of an IEEE standard. A mechanism for detecting and preventing loops from occurring in a multi-bridged environment.
When three or more LAN's segments are connected via bridges, a loop can occur. Because of a bridge forwards all packets that are not recognized as being local,
some packets can circulate for long periods of time, eventually degrading system performance. This algorithm ensures only one path connects any pair of stations, selecting one bridge as the 'root' bridge, with the highest priority one as identifier, from which all paths should radiate.

Spoofing
A method of fooling network end stations into believing that keep alive signals have come from and returned to the host. Polls are received and returned locally at
either end

Static IP Address
A static IP address is an IP address permanently assigned to computer in a TCP/IP network. Static IP addresses are usually assigned to networked devices that are consistently accessed by multiple users, such as Server PCs, or printers. If you are using your Router to share your cable or DSL Internet connection, contact your ISP to see if they have assigned your home a static IP address. You will need that address during your Router's configuration.

Subnet
For routing purposes, IP networks can be divided into logical subnets by using a subnet mask. Values below those of the mask are valid addresses on the subnet.

TCP
Transmission Control Protocol - The major transport protocol in the Internet suite of protocols provides reliable, connection-oriented full-duplex streams.

TFTP
Trivial File Transfer Protocol. A simple file transfer protocol (a simplified version of FTP) that is often boot diskless workstations and other network devices such as routers over a network (typically a LAN).

Telnet
The virtual terminal protocol in the Internet suite of protocols - Allows users of one host to log into a remote host and act as normal terminal users of that host.

Transparent bridging
The intelligence necessary to make relaying decisions exists in the bridge itself and is thus transparent to the communicating workstations. It involves frame forwarding, learning workstation addresses, and ensuring no topology loops exist (in conjunction with the Spanning-Tree algorithm).

UDP
User Datagram Protocol - A connectionless transport protocol that runs on top of TCP/IP's IP. UDP, like TCP, uses IP for delivery; however, unlike TCP, UDP provides for exchange of datagram without acknowledgments or guaranteed delivery. Best suited for small,

independent requests, such as requesting a MIB value from an SNMP agent, in which first setting up a connection would take more time than sending the data.

UNI signaling
User Network Interface signaling for ATM communications.

Virtual Connection (VC)
A link that seems and behaves like a dedicated point-to-point line or a system that delivers packets in sequence, as happens on an actual point-to-point network. In reality, the data is delivered across a network via the most appropriate route. The sending and receiving devices do not have to be aware of the options and the route is chosen only when a message is sent. There is no pre-arrangement, so each virtual connection exists only for the duration of that one transmission.

WAN
Wide area network - A data communications network that spans any distance and is usually provided by a public carrier (such as a telephone company or service provider).

EC Declaration of Conformity

For the following equipment:

*Type of Product : ADSL 2/2+ Router
*Model Number : ADE-3410A / ADE-3410B
* Produced by:
Manufacturer's Name : **Planet Technology Corp.**
Manufacturer's Address : 9F, No. 96, Min Chuan Road, Hsin Tien, Taipei, Taiwan, R.O.C.

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to 1999/5/EC R&TTE.
For the evaluation regarding the R&TTE the following standards were applied:

Emission	EN 55022	(1998)
Harmonic	EN 61000-3-2	(2000)
Flicker	EN 61000-3-3	(1995 + A1)
Immunity	EN 55024	(2003 + A2)
ESD	IEC 61000-4-2	(1995 + A2)
RS	IEC 61000-4-3	(1995 + A1)
EFT/ Burst	IEC 61000-4-4	(1995 + A2)
Surge	IEC 61000-4-5	(1995 + A1)
CS	IEC 61000-4-6	(1996 + A1)
Voltage Disp	IEC 61000-4-11	(1994 + A1)
LVD	EN 60950	(2001)

Responsible for marking this declaration if the:

☒ **Manufacturer** ☐ **Authorized representative established within the EU**

Authorized representative established within the EU (if applicable):

Company Name: **Planet Technology Corp.**

Company Address: **9F, No.96, Min Chuan Road, Hsin Tien, Taipei, Taiwan, R.O.C**

Person responsible for making this declaration

Name, Surname **Allen Huang**

Position / Title : **Product Manager**

Taiwan	**July, 10th., 2008**	Allen
Place	*Date*	*Legal Signature*